The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[*The* MINING JOURNAL *is Registered at the General Post Office as a Newspaper, and for Transmission Abroad.*]

No. 2538.—VOL. LIV. LONDON, SATURDAY, APRIL 12, 1884. WITH SUPPLEMENT.] { PRICE ..... SIXPENCE BY POST, £1 4s. PER ANNUM

MR. JAMES H. CROFTS, STOCK AND SHARE DEALER,
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.
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BUSINESS transacted in all descriptions of MINING Stocks and Shares British and Foreign), Consols, Banks, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.

BUSINESS negociated in Stocks and Shares not having a general market value.

Every Friday a general and reliable List issued (a copy of which will be forwarded on application), containing closing prices of the week. MINES INSPECTED.

BANKERS: CITY BANK, LONDON—SOUTH CORNWALL BANK, ST. AUSTELL.
TELEPHONE NUMBER 1003.

SPECIAL DEALINGS in the following, or part:—

25 Asia Minor.	75 Guinea Coast Gold.	10 Panuicillo.
50 Akankoo, fully paid.	20 Great Laxey.	50 Prince of Wales.
65 ditto, 17s. 6d. paid.	15 Gunnislake (Clitters).	60 Pestarena.
75 Almada.	200 Hawkin's Hill.	20 Rio Tinto.
50 Bedford United.	50 Hingston Down.	25 Ruby.
60 Bratsberg.	200 Hoover Hill.	50 Rhodes Reef.
50 Bwich United.	80 Home Mines Trust.	25 Richmond.
60 Cankim Bamoo.	100 Hony & Trelawny.	30 Roman Gravels.
50 Carn Camborne.	100 Indian Consolidated.	20 South Caradon.
50 Callao Bis.	80 Indian Glenrock.	25 South Condurrow.
50 Chile Gold.	85 Javali.	50 South Darren.
70 Colombian Hydraulic	25 Kapanga.	50 South East Wynaad.
80 Consolidated.	50 Killifreth.	50 South Devon United.
50 California.	75 La Plata (New).	70 Sortridge (offer wtd.)
50 Colorado.	65 Last Chance.	25 South Penstruthal.
40 Canada Copper.	100 Leadhills.	50 Tambracherry.
80 Chontales.	120 Lisbon-Berlyn.	50 Tanker. Gt. Consols.
100 Cor. So. Austra. Cop.	55 Marke Valley.	10 Tolima A.
90 Denver.	25 Michipicoten.	20 ditto B.
100 Devala Moyar.	20 Mona.	30 Tresavean.
20 Devon Consols.	30 Mounts Bay.	25 Trevaunance.
150 Devon Friendship.	50 Mysore Gold.	20 United Mexican.
50 Devon United.	75 New Caradon.	50 Victoria Gold.
10 Dolcoath.	50 New Callao.	25 Van.
80 Don Pedro.	50 New Emma.	20 Wheal Agar.
50 Drakewalls.	75 New Quebrada.	15 Wheal Basset.
20 Duchy Peru.	300 North Blue Hills.	25 West Callao.
130 East Blue Hills.	20 New Kitty.	50 West Phœnix.
40 Eberhardt.	80 Nouveau Monde.	120 West Caradon.
50 East Caradon.	50 North Penstruthal.	130 West Orebor.
50 East Craven Moor.	25 New West Caradon.	20 West Polbreen.
50 East Lovell.	100 Old Shepherds.	20 West Kitty.
120 East Wheal Rose.	75 Organos.	25 West Poldice.
70 Ecton.	60 Orita.	25 Wheal Coates.
30 Flagstaff.	35 Polrose.	30 Wheal Crebor.
60 Frongoch.	50 Penhalls.	50 Wheal Jane.
50 Frontino.	80 Potosi.	50 Wheal Kitty.
50 Goginan.	80 Port Phillip.	40 Wheal Silver & Lanteglos.
90 Gold Coast.	100 Parys Copper.	
30 Grogwinion.	10 Phœnix United.	80 Wynaad Perseverance

*** SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.

*** SPECIAL BUSINESS at CLOSE PRICES in all Market TIN, COPPER and LEAD SHARES.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

RAILWAYS — SPECIAL BUSINESS.— Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

FOREIGN BONDS — SPECIAL BUSINESS. — Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

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Fortnightly Accounts opened on receipt of the usual cover.
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*** SHARES IN THE ABOVE SOLD FOR FORWARD DELIVERY ONE, TWO, OR THREE MONTHS ON DEPOSIT OF TWENTY PER CENT.
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ESTABLISHED 1842.

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A List of Investments free on application.

MR. BUMPUS has SPECIAL BUSINESS in the undermentioned:—

100 Almada.	100 Eberhardt.	100 Old Shepherds.
75 Asia Minor.	25 East Lovell.	40 Panuicillo.
60 Birdseye Creek.	40 Ecton.	100 Fen-yr-Orsedd.
50 Bratsberg.	50 Frontino.	200 Potosi.
100 Carn Camborne.	30 Great Holway.	100 Prince of Wales.
20 Carn Brea.	10 Great Laxey.	10 Roman Gravels.
200 Chontales.	100 Home Mines Trust.	70 Ruby.
100 Colombian.	150 Indian Consolidated.	25 Richmond.
130 Chile Gold.	25 Killifreth.	100 South Kitty.
40 Colorado.	20 Leadhills.	40 South Devon.
100 California Gold.	120 La Plata.	50 South Caradon.
15 Coptapo.	100 Lisbon-Berlyn.	50 Trevaunance.
150 Callao Bis.	100 Montana.	15 Tolima B.
5 Cook's Kitchen.	50 Marke Valley.	50 Transvaal Gold.
60 Canada Copper.	100 Mounts Bay.	10 United Mexican.
3 Dolcoath.	15 Miners.	50 West Godolphin.
100 Devon Friendship.	60 New Callao.	20 Wheal Grenville.
20 Devon Consols.	50 N. Trumpet Consols.	10 West Kitty.
50 Duchy Peru.	35 New Kitty.	15 Wheal Basset.
100 East Wheal Rose.	100 Nouveau Monde.	100 Wheal Coates.
5 East Pool.	100 Organos.	50 Wheal Crebor.

N.B.—Prices of the above on application, or offers may be made. Several lots of shares in this list are for sale under market quotations.

SPECIAL BUSINESS, at close prices, in the SHARES of all the principal HOME and FOREIGN MINES.

MR. BUMPUS devotes special attention to these Securities, and is in a position to afford reliable information and advice to intending investors and others,
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30 Bratsberg Copper.	50 New West Caradon Copper.	50 South Caradon Copper
100 Callao Bis Gold.	50 New Caradon Copper.	15 Trevaunance.
80 Colombian Hydraulic Gold.	60 New Callao Gold.	100 Tankerville Gt. Con.
30 Carn Camborne Tin & Copper.	75 Nouveau Monde Gold	50 Tresavean Copper & Tin.
50 Chontales Gold.	100 North Blue Hills.	10 Tolima A.
40 Corporation of South Australia Copper.	80 New Callao Gold.	10 Untd. Mexican Silver.
25 Cartago Gold.	65 Old Shepherds.	60 Victoria Gold.
75 Devon Friendship.	40 Organos.	20 Western Andes.
3 Dolcoath Tin.	20 Orita Gold.	40 West Callao Gold.
30 Duchy Peru Silver-ld.	50 Prince of Wales.	50 West Caradon Copper
100 East Rose Lead.	100 Potosi Gold.	20 West Polbreen Tin.
40 East Blue Hills Tin.	75 Port Phillip Gold.	50 West Gonamena Cop.
10 East Lovell Tin.	90 Parys Copper.	5 West Kitty Tin.
30 Ecton Copper.	20 Richmond Silver.	50 Wheal Jane Tin.
80 Gold Coast.	10 Roman Gravels Lead.	50 Wheal Coates.
50 Home Mines Trust.	40 Ruby.	10 Wheal Agar Tin.
50 La Plata Lead.	10 Schwab's Gully Diamond.	30 Wheal Crebor Copper
20 Leadhills.	50 Sortridge Copper and Tin.	20 Wheal Silver and Lanteglos.
50 Lisbon-Berlyn Gold.	5 South Frances Tin.	80 West Crebor Copper.
50 Mounts Bay.	150 South Kitty Tin.	

TEN PER CENT. DEPOSIT.—Many of the above shares can be sold for settlement by arrangement at the middle or end of May on payment of 10 per cent. deposit. Shares not found in the above list may be purchased on application.

MR. ALFRED E. COOKE is a BUYER of the following SHARES:—

25 Bratsberg.	5 Mounts Bay.	30 Tresavean.
2 Dolcoath.	25 Old Shepherds.	5 Tolima A.
10 East Lovell.	50 Organos.	20 Victoria.
40 Ecton.	25 Richmond.	15 Wheal Crebor.
30 Home Mines Trust.	100 Tankerville.	10 West Kitty.

The CURRENT QUOTATIONS appear in the Leading Article of the MINING JOURNAL; and, in order to save unnecessary correspondence, customers are invited to make offers either to BUY or SELL shares at prices based on those quotations.

RECENT RECOMMENDATIONS.—Mr. ALFRED E. COOKE directs attention to the fact that the following shares have advanced in accordance with his recommendation:—Dolcoath, East Blue Hills, Old Shepherds, South Frances, United Mexican, and Wheal Agar.

PRICE LIST of MINE SHARES and the LEADING RAILWAY and FOREIGN STOCKS is issued every FRIDAY, except GOOD FRIDAY.

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TELEPHONE NUMBER, 1268.

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Has Special Business in the following for cash or settlement by arrangement free of commission:—

60 Almada.	60 East Rose.	40 Organos.
50 Akankoo.	Gold Coast.	40 Panuicillo.
30 Bratsberg.	25 Great Laxey.	60 Prince of Wales.
120 Consolidated Silver.	60 Home Mines.	80 Potosi.
70 Californian.	45 Javali.	25 Polberro.
50 Callao Bis.	60 Kapanga.	30 Richmond.
25 Carn Camborne.	150 Kohinoor B.	55 South Kitty.
70 Chile Gold.	50 La Plata.	20 South Frances.
100 Chontales.	50 Leadhills.	60 South Penstruthal.
95 Colombian.	85 Lisbon-Berlyn.	70 Tresavean.
55 Colorado.	40 Montana.	50 Transvaal Gold.
50 Cor. So. Austra. Cop.	100 Mounts Bay.	30 Tolima A.
60 Copiapo.	55 Michipicoton.	30 United Mexican.
50 Devon Friendship.	75 New Callao.	100 Victoria Gold.
15 Devon Consols.	100 Nouveau Monde.	60 West Callao.
100 Denver.	70 Old Shepherds.	20 West Kitty.
100 Ecton.	80 Orita.	25 Wheal Crebor

Railways, Foreign Bonds, Gold and Silver Mines, Miscellaneous Shares, and all Stock Exchange Securities.
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SCHWAB'S GULLY DIAMOND MINE Shares fully-paid should be bought for a big rise. Telegrams announce the finding of 300-carat diamond in De Beers. Shares now purchased carry the dividend to be declared on 10th inst.

OLD SHEPHERDS.—Important news expected during Easter, which will cause the shares to double in price. They should be bought at once for a big rise.

Special Circular now ready sent post free.
ABBOTT, PAGE, AND CO., STOCKBROKERS,
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Established Twenty-five Years.
BANKERS: LONDON JOINT-STOCK.

WEST KITTY, NEW KITTY, AND TREVAUNANCE.

The very important meetings of these first-class mining companies are reported fully on page 363 in the *Mining Journal* of March 29, and the attention of those interested is particularly directed to the same.

POLBERRO, ST. AGNES.

The shares of this mine are in favour, and will advance probably to a very high figure. The mine has been inspected by gentlemen who are well known, and whose opinions are universally respected. Mr. REYNOLDS will be happy to furnish the particulars of their report, and to give to his correspondents any information in his power. The books of the company and all other particulars are open for inspection at the company's offices. The management is the same as that of West Kitty, and the property promises to be of a very high order. Mr. REYNOLDS directs attention to the fact that those who have purchased the shares can already obtain a fair profit. Mr. REYNOLDS further directs attention to the circumstances of his having been the first to introduce West Kitty, under very similar circumstance to those which now characterise Polberro, St. Agnes, and Mr. REYNOLDS with equal confidence recommends the latter company's shares. West Kitty, with at present 12s. per share paid, returns 30s. per share per annum as a minimum dividend with every prospect of further increase. When West Kitty shares had only 2s. per share paid they were at a premium of £2 each.

FERDINAND R. KIRK, STOCKBROKER,
5, BIRCHIN LANE, LONDON, E.C.

SPECIAL BUSINESS in the following:—

40 Almada.	60 Kapanga.	60 Old Shepherds.
80 Bratsberg.	50 Leadhills.	90 Organos.
30 Great Laxey.	80 Montana.	40 Roman Gravels.
100 Home Mines Trust.	30 Newport Abercarn.	50 Transvaal Gold.

SHARES WANTED:—

100 Chontales.	80 Home Mines Trust.	40 Orita.
60 East Wheal Rose.	50 Minera.	20 Rio Tinto.
40 Great Holway.	90 Old Shepherds.	90 Victoria Gold.

Sellers should state whether for cash or account, and name their price.
Fortnightly accounts opened in Home Railways, Foreign Bonds, American and Canadian Railways, on receipt of the usual cover.
BANKERS: LONDON AND WESTMINSTER, Lothbury.

THE "DIFFERENTIAL" PUMPING ENGINE (DAVEY'S PATENT),
FOR
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SHARES SOLD for forward delivery in one to three months upon usual deposit.
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MR. J. GRANT MACLEAN,
SHAREBROKER AND IRONBROKER, STIRLING, N.B.,
Refers to his Share Market Report on page 426 of to-day's Journal.

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Can SELL the following SHARES:—

50 Almada.	20 Leadhills.	20 Roman Gravels.
10 Bratsberg.	5 Lombardy Rail, offer wanted.	100 Russell United.
50 Colombian Hydraulic	75 Mounts Bay.	10 South Darren.
50 Corporation of South Australian Copper.	20 Montana.	100 Tankerville.
60 Chontales.	60 Nouveau Monde.	10 United Mexican.
15 Colorado.	30 New Trumpet Consols	15 Wheal Crebor.
40 Devon Friendship.	40 Prince of Wales.	2/ Western Andes Gold.
		25 West Callao.

VICTORIA GOLD (Venezuela).—I strongly recommend the immediate purchase of these shares for an important rise; also CORPORATION OF SOUTH AUSTRALIAN COPPER.
PURCHASES FOR FORWARD DELIVERY AT SPECIAL PRICES ON RECEIPT OF DEPOSIT OF 20 PER CENT.
BUYER of any part of 100 Victoria Gold (Venezuela), Tolima A and B, Carn Camborne, East Rose, Home Mines Trust, Old Shepherds, and Mounts Bay.
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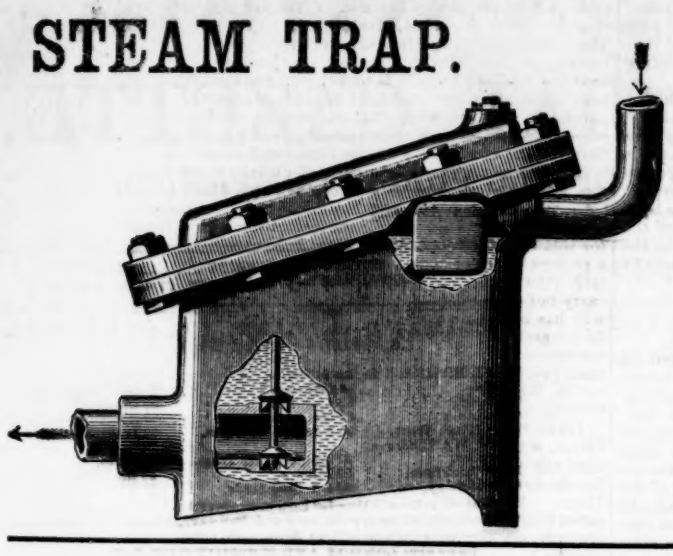
STEAM TRAP.



Price of High Pressure Steam Traps.

		£	s.	d.
No. 1 size,	½-inch bore	2	10	0
„ 2 „	¾-inch „	3	10	0
„ 3 „	1-inch „	5	0	0
„ 4 „	1¼-inch „	6	0	0
„ 5 „	1½-inch „	7	10	0
„ 6 „	2-inch „	10	0	0
„ 7 „	2½ inch „	12	0	0
„ 8 „	3-inch „	14	0	0
„ 9 „	4-inch „	16	10	0

TESTIMONIALS.

From Mr. Joshua Trickett, Green Bridge Print Works, Waterfoot, near Manchester.

Dear Sir,—The two large Steam Traps you sent me 16 years ago are a great success; during that time they have only had their covers removed *twice*. Will you please send me one more No. 5 size.

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Dear Sir,—We have in all 15 of your Steam Traps at work in various parts of our establishment, and have much pleasure in bearing testimony as to their entire efficiency. Since we adopted them we have been spared much annoyance from broken joints, &c.

We are, dear Sir, yours very truly,
JAMES H. ASHWORTH AND CO.

Birkacre Print Works, Chorley.

Mr. Blake.

Dear Sir,—Would you please send us as soon as possible eight of your No. 1 Steam Traps. We are very well satisfied with them after several years' experience.

We are, yours truly,
M'NAUGHTON AND THOM.

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Strong Iron Circular Saw Benches.

Planed Table, Fence, Pulleys, and Cast Steel Mandrel.

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„ 2,	„ 48 in. by 24 in.	„	24 in.	Saw...	...	...	11	10	0
„ 3,	„ 60 in. by 30 in.	„	30 in.	Saw...	...	...	15	5	
„ 4,	„ 66 in. by 33 in.	„	36 in.	Saw...	...	...	17	0	
„ 5,	„ 66 in. by 33 in.	„	42 in.	Saw...	...	...	19	0	0
„ 6,	„ 72 in. by 36 in.	„	48 in.	Saw...	...	...	24	15	0
„ 7,	„ 84 in. by 38 in.	„	60 in.	Saw...	...	...	38	0	0

WITH RISING AND FALLING SPINDLE.

No. 1,	with Rising and Falling Spindle	...	...	...	...	13	0	0
„ 2,	„ „ „	...	...	...	...	15	10	0
„ 3,	„ „ „	...	...	...	...	19	15	0
„ 4,	„ „ „	...	...	...	...	22	10	0
„ 5,	„ „ „	...	...	...	...	26	0	0
„ 6,	„ „ „	...	...	...	...	29	15	0

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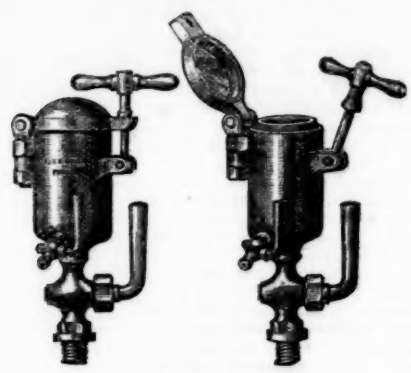

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No. 1 size, external diameter of cup, 2 in. by 3 in. inside depth, exclusive of cover	£1	10	0
No. 2 ditto, ditto, 2½ in. by 3¾ in. ditto, ditto	2	0	0
No. 3 ditto, ditto, 3 in. by 4½ in. ditto, ditto	2	12	0
No. 4 ditto, ditto, 3½ in. by 5¼ in. ditto, ditto	3	5	0
No. 5 ditto, ditto, 4 in. by 6 in. ditto, ditto	4	0	0
No. 6 ditto, ditto, 4½ in. by 6¾ in. ditto, ditto	5	5	0
No. 7 ditto, ditto, 5 in. by 7¼ in. ditto, ditto	6	6	0
No. 8 ditto, ditto, 5½ in. by 8¼ in. ditto, ditto	7	10	0
No. 9 ditto, ditto, 6 in. by 9 in. ditto, ditto	9	0	0

THIS LUBRICATOR IS
Simple, Economical, and Reliable,
AND WILL FEED OIL, TALLOW, OR SUET WITH GREAT REGULARITY.

TESTIMONIALS.

From the Whalley Abbey Printing Co., Whalley.
February 10, 1880.

After twelve months' experience in the use of your patent Steam Engine Lubricators, we are pleased to hand you an order for 15 more, same size as the first you sent.

From Messrs. Brooke, Swindells, and Co., Clarence Mills, Bollington, near Macclesfield.
March 18, 1880.

I am well satisfied with your patent Lubricators, which answer our purpose here very well. They are, in my opinion, the most efficient and simple Lubricators of numbers that I have tried.
(Signed) JOSEPH BROOKE.

From Messrs. The Great Harwood Coal Co., near Accrington.
September 22, 1880.

We like your Lubricators, which have been in use here some two years, and have decided to apply them now to other engines. We enclose you formal order for eight more.

From Messrs. The Hollins Mill Co., Marple.
April 6, 1879.

Your patent Steam Engine Lubricator, which we have tested against others we have selected as the best, and now hand you an order for two more.

From Messrs. The Altham Colliery Co., near Accrington.
Oct. 16, 1880.

Some time since we tested the merits of your patent Steam Engine Lubricator against others. We were so satisfied with their efficiency and economy that we have since then applied them to all the new plant which we have put down.

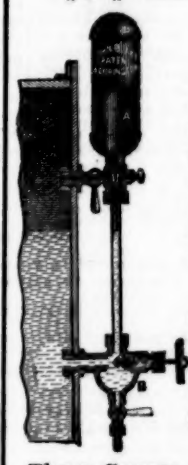
From Mr. Joseph Green, Jack House Mill, Oswaldtwistle, near Accrington.
Oct. 21st, 1880.

The Patent Lubricator you sent me has effected great improvement in the running of my engine. There is now no jerking in the valve motion, and the quantity of tallow used is remarkably little.

BLAKE'S SELF-FLUSHING
WATER GAUGE
FOR STEAM BOILERS.

PRICES:

	WITH CONDENSER.	WITHOUT CONDENSER
No. 1 Size	£4 10 0	£2 10 0
„ 2 „	3 10 0	1 15 0

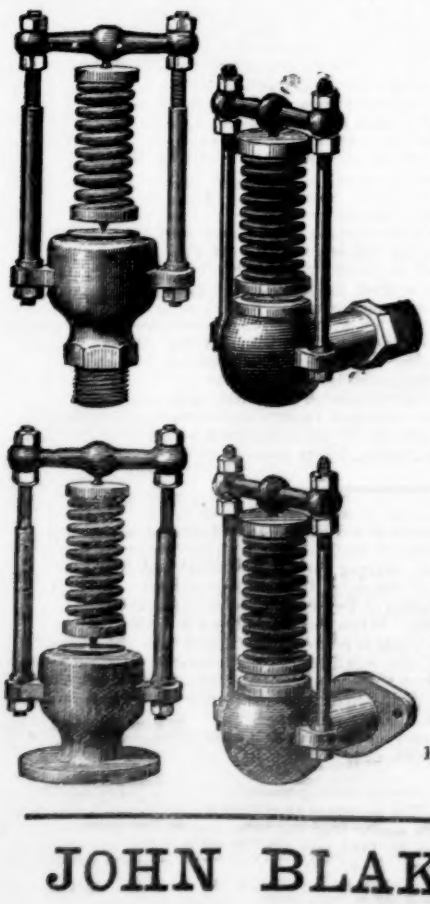


A is a cylindrical copper vessel supplied with steam through the top gauge cock, and being exposed to the atmosphere it is constantly condensing the steam, thus causing a downward flow of clean water into the glass tube and bottom gauge cock, and so excluding dirt or sediment, which would otherwise enter with dirty water from the boiler.

When the blow through tap is opened the clean water is ejected, and on closing it any dirt or sediment that may have entered the bottom gauge cock settles in the dirt box, **B**, which dirt is immediately discharged the next time the blow-off tap is opened.

These Gauges are very strong and substantially made, and have unusually large thoroughfares.

BLAKE'S STEAM ENGINE CYLINDER, & BOILER SAFETY VALVES.



	£	s.	d.
1-in. ...	1	5	0
1½-in. ..	2	2	0
2-in. ...	2	15	0
2½-in. ..	3	10	0
3 in. ...	4	10	0
4-in. ...	5	15	0

SEE SPECIAL LIST.

	£	s.	d.
5-in. ...	8	0	0
6-in. ...	11	0	0
7-in. ...	14	0	0
8-in. ...	18	10	0
9-in. ...	22	10	0
10-in. ...	28	0	0

These Valves prevent many Costly Breakdowns of Steam Engines through presence of Water in the Cylinders.

TESTIMONIALS.

From Messrs. John Musgrave and Sons, Engineers, Bolton.
August 20th, 1878.

After five years' experience in the use of your Relief Valves, and having applied about 600 of them, we are pleased to say that they have given the greatest satisfaction to ourselves and customers, and we think no steam engine is complete without them.

From Buckley and Taylor, Castle Ironworks, Oldham.
September 20th, 1878.

We have much pleasure in bearing testimony to the efficiency of your Relief Valves. They prevent many costly breakdowns. In the last four years we have used nearly 300 of them with the most satisfactory results.

From Messrs. William Calvert and Sons, Cotton Spinners, Walton-le-Dale, Preston.
September 3rd, 1868.

Please send us 20 Relief Valves same as the 4 previously supplied, which gave us great satisfaction.

From Messrs. R. R. Jackson and Brother, Cotton Spinners, Blackburn.
July 9th, 1874.

Please send us 21 Relief Valves similar to 10 already supplied.

From Messrs. Barlow and Jones, Albert Mill, Bolton.
February 9th, 1875.

Please send us eight 4 in. Relief Valves same as the 14 we have had before.

From Messrs. Robert Watson and Co., Stone Bridge and Ryddings Mills, Church.
February 14th, 1876.

Please send us fourteen 4 in. Relief Valves same as the two had from you two years since.

From Mr. Richard Haworth and Co., Egerton Mill, Ordsall-lane, Salford.
May 17th, 1872.

Please send us twelve 4 in. and six 5 in. Relief Valves same as last, which are very satisfactory.

From Mr. George Eastwood, Clow Bridge Mill, Burnley.
September 15th, 1870.

The two Relief Valves that you sent me near two years ago have pleased me well. Send me eight more, each 4 in. diameter, four to Fig. 14 and four to Fig. 15 on your list.

NUMBER OF THESE VALVES SUPPLIED TO THE FOLLOWING FIRMS:—

Messrs. John Musgrave and Sons, Engineers, Bolton	700
„ Buckley and Taylor, Oldham	335
„ Hick Hargreaves and Co., Bolton	98
„ J. and E. Wood, Bolton	66
„ Calvert and Sons, Cotton Spinners, Preston	39
„ R. R. Jackson and Co., Cotton Spinners, Blackburn	35
„ R. Haworth and Co., Cotton Spinners, Manchester	31
„ G. and R. Dewhurst, Cotton Spinners, Preston	30
„ Barlow and Jones, Bolton	25
„ Woistenholme, Rye, and Co., Engineers, Oldham	36
„ Abraham Ormerod and Brothers, Todmorden	20
„ Oldham, Whittaker, and Sons, Ashton-under-Lyne	19
„ J. Stuttard and Sons, Higham Mills, Burnley	17
Mr. W. Forest, Blackburn	16
Messrs. John Musgrave and Sons, Cotton Spinners, Bolton	16
„ R. Watson and Co., Church	16
„ Tunstall Brothers, Brierfield	15
„ Walker and Lomax, Cotton Spinners, Bury	14
„ R. Smethurst and Co., Cotton Spinners, Chorley	14
„ Lewis Brothers, Cotton Spinners, Blackburn	14
„ Vose and Delins, Manchester	120
„ Julius Allman and Co., Manchester	24
„ J. and W. McNaught, Engineers, Rochdale	44
Mr. George Saxon, Engineer, Manchester	56
Messrs. John Petrie and Sons, Engineers, Rochdale	44
Mr. William Bracewell, Engineer, Burnley	36
Messrs. G. and W. Bertram, Engineers, Edinburgh	16
„ Thomas Eccles, Sons, and Co., Cotton Spinners, Preston	16
„ Olive and Partington, Paper Makers, Glossop	14
„ Sir Elkanah Armitage and Sons, Manchester	12
Mr. James Greaves, Derker Mills, Oldham	12
Messrs. Joseph Heaward (Limited), Stockport	14
„ The Union Foundry Co., Bolton	17
„ W. and J. Galloway and Sons, Manchester	12
„ Richard Thompson and Sons, Padiham	12
„ The Cliviger Coal Co., Burnley	14
Mr. J. R. Crompton, Bury	12
Messrs. The Hollins Mill Co., Marple	19
„ Woods and Co., Wigan	10
„ Thompson and Birtwistle, Great Harwood	12
Mr. James Thompson, Blackburn	12
Messrs. James Threlfall and Sons, Preston	12
„ Norris Brothers, Heywood	12

JOHN BLAKE, Engineer, ACCRINGTON, LANCASHIRE.

ECONOMIC LIFE ASSURANCE SOCIETY.

6, NEW BRIDGE STREET, BLACKFRIARS, LONDON, E.C.

Abstract of the TWELFTH QUINQUENNIAL REPORT of the Directors, presented at the General Court, held on FRIDAY, 4th April, 1884.

HENRY BARNETT, Esq., Chairman of the Society, in the chair.

The directors of the Economic Life Assurance Society have great pleasure in presenting to the members the following report of the gratifying results of the investigation for the five years ended on 31st December last, which has been made in accordance with the provisions of the Deed of Settlement at the close of the Twelfth Quinquennial period.

The total accumulated Funds, the particulars of which are set forth in the Balance-Sheet, amounted to £3,619,661, and the total liabilities, consisting of the values of Policies and Bonuses already declared, amounting to £3,050,831.

There remained, therefore, after making provision for every known liability, a surplus of £568,830.

The directors recommend that of the surplus of £568,830, the sum of £384,000 be appropriated as absolute bonus among those immediately entitled to participate, and among those assured to 31st December last; the latter to vest after the payment of five full years' premiums.

The sum of £384,000 will produce Reversionary Bonuses immediately vested, and further Reversionary Bonuses vested on the completion of the full number of premiums required, amounting to £646,000.

During the past five years the number of proposals received for new assurances has been 2494, and the number of policies issued 2053; number of proposals declined and not completed, 441. The amount assured by the policies issued has been £1,438,191, producing a new annual premium income of £43,137 10s. 7d. The new premiums received—including single payments—have, however, been £56,639 8s. 8d.

The Policies cancelled by death have been 1211, and from other causes 547, making a total of 1758. Of the 1211 Policies which have become claims, 1121 for sums assured of £999,115, carried Bonus Additions amounting to £313,598, averaging £31 7s. 9d. per cent. on the sum originally assured.

There was remaining at 31st December last, assured by 10,367 policies, the original sum of £8,255,376; and Bonus Additions outstanding to that date £981,879. The annual premiums payable thereon amounted to £218,327 16s. 10d.

The *Invested* Funds on 31st December last yielded an average rate of interest of £4 6s. 8d. per cent.

CONSOLIDATED REVENUE ACCOUNT for five years commencing the 1st January, 1879, and ending the 31st December, 1883.

Amount of Funds at 1st January, 1879	£3,375,359	6	8
Premiums (less Re-Assurances)	1,137,600	12	4
Interest and Dividends	759,620	19	2
Other Receipts—			
Registration Fees	364	5	0
Profit on Reversions, and Re-valuation of Securities	34,829	9	4
	£5,307,774	12	6
Claims (less Re-Assurances)	£1,402,800	8	2
Surrenders	43,113	2	5
Annuities	3,450	18	0
Commission	38,7 5	15	1
Expenses of Management	71,590	16	2
Other Payments—			
Ready Money Bonus	81,785	10	0
Remitted in Premiums as Bonus	30,537	13	11
Income Tax	16,119	3	7
Amount of Funds at 31st December, 1883	3,619,661	0	2
	£5,307,774	12	6

VALUATION BALANCE-SHEET, AS AT 31ST DECEMBER, 1883.

DR.			
To Net Liability under Assurance and Annuity Transactions	£3,050,831	9	0
To Surplus	568,830	0	2
	£3,619,661	0	2
CR.			
By Life Assurance and Annuity Funds, viz.:—			
Mortgages on Property within the United Kingdom	£866,754	7	8
Mortgages on Property out of the United Kingdom	*Nil.*		
Loans on the Society's Policies	180,132	11	8
Investments—			
In British Government Securities	43,261	15	4
Indian and Colonial Government Securities	441,781	1	10
Foreign Government Securities	*Nil.*		
Railway & other Debentures & Debenture Stocks	342,251	12	4
House Property (Office Premises)	26,000	0	0
Other Investments, viz.:—			
Mortgages of County, Corporation, and Union Rates	1,141,580	12	3
Mortgages of District Rates	551,899	13	7
Reversions	27,277	9	4
Life Interests	13,443	9	0
Agents' Balances (since paid)	15,733	7	1
Outstanding Premiums	21,362	10	11
Interest, viz.:—			
Overdue £4,656 3 8			
Accrued, but not yet payable 46,175 6 0			
	50,831	9	8
Cash—			
In hand, and on Current Account	1,932	17	6
	£3,724,243	12	2
Less Claims admitted but not paid £100,582 12 0			
Loan from Bankers 4,000 0 0			
	104,582	12	0
	£3,619,661	0	2

Meetings of Public Companies.

NEW VAN CONSOLS AND GLYN MINING COMPANY.

The adjourned ordinary general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Tuesday,

Mr. PRYCE JONES in the chair.

Mr. JAMES COOPER (the secretary) read the notice convening the meeting, and the minutes of the preceding meeting, which were confirmed.

The CHAIRMAN said the shareholders would remember that the meeting held on Jan. 25 was adjourned for the purpose of enabling the committee which was then appointed to draw up their report upon the best means to be adopted for the reconstruction of the company. He would, therefore, ask the committee to bring in their report.

Mr. CHARLES CLARK presented the report of the committee, which recommended the following scheme for the consideration of the shareholders:—That a new company—the Llanidloes Mining Company—should be formed with a capital of 25,000*l.*, divided in 15,000 A shares of 1*l.* each, and 10,000 B shares of 1*l.* each, the 15,000 A shares to bear a cumulative preferential dividend of 10 per cent. per annum, and the 10,000 B shares to receive the balance of the profits, if any, until they also receive a 10 per cent. cumulative dividend, any profit beyond the amounts necessary to pay those dividends being equally divisable without reference to denomination. The 10,000 B shares were to be allotted to the holders of fully-paid shares in the present company in the proportion of one new share for every five shares now held by them; 799*l.* would have to be provided on the A shares, partly in cash and partly in shares for the debentures and the interest due upon them, and for the amount expended in redeeming the property and the other disbursements in connection with the company, leaving, if the scheme were carried out, 7010*l.* for working the mine. To this arrangement assents had been received from a large proportion of the debenture holders. The report further recommended that it was undesirable to appoint as liquidator anybody who had at any time been officially connected with the company, and expressed regret that the letter making this suggestion which had been sent by the committee to the secretary had been disregarded.

A long discussion ensued, principally with reference to the last recommendation in the committee's report, in the course of which,

The CHAIRMAN said he wanted to give the mine a last chance, believing that the property was worthy of such an effort, which should be final. He, however, strongly objected to the last clause, which he regarded as a personal reflection on the able secretary and himself who were named in the notice as the liquidators suggested for the approval of the shareholders.

Mr. CLARK said the report was quite impersonal, and if the suggestion to which objection was made were adopted, Mr. Bolton and himself would equally with the Chairman and the secretary be excluded from the office of liquidator The past history of the company had been so unfortunate that it was very desirable the liquidation should be carried out by a perfectly disinterested person Mr. Clark alluded to the report not having been sent into the company's office, and consequently not printed and distributed.

The CHAIRMAN added that if the last paragraph were not expunged from the report he would wash his hands of the affair at once.

After some further discussion,

The SECRETARY, in reply to a question, said there was about 5*l.* due to himself, 600*l.* to merchants, and acceptances of the old company to the extent of 657*l.*; towards which there was about 1100*l.* due on calls; but whether the whole or the greater part of that would be got in he could not say.

Mr. CLARK having moved, and Mr. J. C. BOLTON having seconded the adoption of the report of the committee, an amendment was moved by Mr. PETRIE and seconded by Mr. TAYLOR, to the effect that the report should be received with the exception of the last paragraph, which should be expunged.

The amendment was carried with five dissentients.

The meeting was then constituted extraordinary, when, on the motion of the CHAIRMAN, seconded by Mr. ANSELL, resolutions were agreed to appointing Messrs. Pryce Jones and James Cooper liquidators, and authorising the registration of the Llanidloes Mining Company and the transfer of the property thereto.

SIERRA BUTTES GOLD MINING COMPANY.

The ordinary general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Tuesday,

Mr. F. TENDRON (the Chairman of the company) presiding.

Mr. JOHN SAUL (the secretary) read the notice convening the meeting. The reports and accounts were taken as read.

The CHAIRMAN said: The yield of the Sierra Buttes ore for the six months was an average of $6·81, as against $6·77 per ton for the preceding seven half-years. The cost was $4·52 against an average of $4·25, so that the value of the ore was slightly in excess, and the cost was slightly in excess also of the average. It seems strange that with so small a difference the dividend should have to come down to 6d. per share, or at the rate of 2½ per cent. per annum; but the reason for bringing it down is a purely financial one. It is not that there is any falling off in our expectations as to the value of the property, but solely because of our financial position. We raised, as you know, 20,000*l.* on debentures to pay for certain new works, those new works will cost us about 26,000*l.*, and we did not consider it desirable to strain that financial position even for the sake of keeping up the dividend to what it has been now for some time—at the rate of 5 per cent. per annum. But you may think it rather strange that in 1881 you received dividends at the rate of 7½ per cent., and you have come gradually down like this to 5 and 2½ per cent. Well, you know that the history of this mine has been one of constant vicissitudes. We began with very high dividends—I think 20 per cent. paid quarterly; then we came down to 5 per cent., and in one half-year you came down to no dividend at all, and I think that on the whole you will find the policy we shall now pursue—that of gradually increasing our dividends and strengthing the financial position of the company and our reserves—the only sound policy to be followed in a mining property. The main reason for the falling off has not been the increase in the expenses or the diminution in the value of the ore, but because in former days we had two mills at work, and for the last two years we have only had one mill. You will remember that about two years ago the Hanks mill was destroyed by a snow slide. It was placed so high up on the hill that it was not worth re-constructing it, as our works naturally go lower and lower as we drive successive tunnels, and it was decided to build an entirely new mill at the lowest level at which we can drive a tunnel—that is, at the mouth of the ninth level. We have undertaken many great works, and I wish to allude briefly to those works that are still in progress. First of all I would refer to the eighth level. That level was commenced in July, 1878, and has been carried on without intermission ever since, and has cost us out of revenue up to the present time close upon 12,000*l.* From that level we have not derived a single shilling; and, therefore, it has all been out of pocket, but we have laid open certain reserves at a distance of about 3200 ft. from the mouth of the tunnel. There are two bodies of ore cut, which are known as the Cliff and the Willoughby shoots; and although those bodies are nothing like equal to the bodies you worked in the early levels of the mine, still they are better in the eighth level than in the seventh, and the opinion of those best capable of forming a sound judgment upon them is that they will be better in the ninth level even than they are in the eighth, where we have at last accomplished what we started to achieve, and that was to reach the Mammoth shoot, and on March 14, in putting up some timbering to secure a level, a portion of the vein showed itself. It was only 6 in. wide, but of good quality. For some time before they had met with a certain quantity of sulphurets and gold, but not sufficient to pay. This was the commencement of the real pay shoot—a shoot which in the seventh level was nearly 900 feet long—and if it is only of like length and strength in the eighth level it will certainly help to compensate you for the small dividend that you are receiving on this occasion. We shall not derive any great benefit from that shoot during the current half-year. The mill, which is another great work in hand, was started towards the end of last month; and when a new mill is started there is a great loss of amalgam—or rather the amalgam is not lost, but it is not recovered for a time; and, therefore, we cannot expect any great advantage from that. In March, in fact, we know it is not so, for the estimated clean-up for the month of March is only $17,500; but each succeeding month we may hope for a better result from the new mill, which is called the Yuba mill. It has only 20 stamps now, but from June 40 stamps will be at work, and the way both mills will be utilised will be by continuing the winze under the shaft at the western part of the mine. A rise will be made to connect with it, and then a certain portion of the ore will be taken up to the seventh level and carried to the Hitchcock mill, and the other portion will be carried by the eighth level and the tramway, which has been made from the eighth to the ninth level, and so on to the new mill. The new mill will cost us for these 40 stamps about 12,000*l.*, and although it will only be a 40-stamp mill, and not so large as the Eureka, which is a 60-stamp mill, it will be even a finer mill than the Eureka. No expense has been spared, and the very best machinery and workmanship have been applied to it. The ninth level has cost us about 13,000*l.*, and it has been driven about 3500 ft. Of that 13,000*l.* about 4000*l.* has been paid out of revenue, and the other 9000*l.* out of what we call capital, for the moment; but this will be recouped out of the profits of the new mill The ninth level will still be charged to this account. For the current six months it will cost about 3000*l.*, but after June all expenses, of whatever nature, will have to be borne out of revenue; and we shall also have to provide out of revenue for the repayment of the 20,000*l.* of debentures that we have raised. We shall be able to do so if things only go the way we have every reason to expect they will without any difficulty. I cannot tell you with any safety what the dividend will be next October on the Sierra Buttes shares; but I think that is immaterial so long as you know your capital is safe, and that you can rely in future on a moderate dividend—that is a 7½ per cent. dividend—at the same time putting by large reserves, and ensuring the continued existence of the company. Up to the present time, including this dividend, the shareholders will have received 272,000*l.* in dividends; and this is not a bad property to have paid so large an amount, and in addition to have its existence assured, at all events for a certain period, by the works that we have carried and that we are still carrying.

Mr. FREWER: In how many years has that amount been paid?

The CHAIRMAN: In about 14 years. It has given an average dividend to the original shareholders of more than 10 per cent. At one time we feared that the current half-year would be a very gloomy one, because so little snow fell, and we were then uneasy because so much snow fell. At all events, we are safe for a good water supply for the next six months. I can then take leave of you on the subject of the Sierra Buttes Mine with considerable satisfaction, for unless something totally unforseen occurs, you will have reason to be well satisfied with the state of things the next six months. Of course we shall have to watch with great interest the driving of the eighth level underneath this shoot; but the assurances from Capt James and Mr. Johns are so positive, and the actual results of sinking are so good that we really are past the region of doubt, and are almost in that of certainty that we have a very fine body of ore between the eighth and seventh levels, a distance of something like 415 ft. on the dip of the vein. I now turn to the Plumas Eureka. The average yield of the ore was $6·93 per ton—you see how close the Sierra Buttes and Plumas Eureka are now together in yield—against $6·94 in the previous seven half-years, that is almost the same. The cost was $4·05 per ton, against $3 55, or an increase in the cost of 8½ a ton, which is a very important consideration; but you will see what the reason of it was—the same reason that has reduced the dividend from 15 per cent., that it used to be, to 10 per cent.—that in those days the average of the half-yearly stamping was, for the last two years 28,700 tons, whereas the average for the two preceding years was 36,700 tons, which makes all the difference in the case of any profit. The reason was that the Mammoth mill was placed conveniently for working the upper levels, but it was impracticable for the lower levels, and when we came to get below the Mammoth to the Mohawk and then to the Eureka, the mill was useless excepting for such ores as could be got from the 76 mine. Then last year was not a particularly good year for water supply, and the mill was not worked at all during the whole year. I do not attach very much importance to this, for the simple reason that I think there is no greater error you can make than having stamping power in excess of what the mine can put out, and the condition of the Plumas Eureka Mine is totally different to what it was when the Mammoth level was driven. I think a great many of the shareholders have been shareholders from the commencement, and they must remember that the one feeling predominant in our minds in former years was—When shall we earn at the rate of 20 per cent. per annum for eight consecutive quarters? That was the great idea. The Mammoth level laid open such a large body of ore, and of such good quality, that Mr. Johns sat on the top of the winze in simple delight as to the future of the shareholders; and joined with that feeling of 20 per cent. came the uncomfortable feeling that the Sierra Buttes shareholders might come in and share it too. Now things are very much altered. It is the Sierra Buttes which is going forward, and the Plumas Eureka which is unfortunately, going backward; but you must expect these vicissitudes in mining. The vein broke at a certain distance below the Mohawk, and although it improved in the 300, and still further improved in the 400, we do not know what the vein will be like when the Eureka tunnel reaches it; but we do know that after spending 10,000*l.* in driving that tunnel, the Eureka tunnel has reached under the No. 3 shaft, and there is no vein there—it has pinched out. That does not look satisfactory for the moment; it looks as if we were coming again to one of those unfortunate breaks. Whether it will be so or not it will be impossible for us to say for some few months to come. The tunnel or level passed through a very good body of ore, known as the Eureka shoot, and that will give us some ore of fair quality; but, although the vein is much better in the 400 than in the 300—that is to say, it is more solid to greater length and greater average breadth—a great deal of the ore is of poor quality—$4, $5, and $6 ore, and very little $7 ore. We cannot afford to reject any of this ore; it must be stamped, and therefore the proceeds from one mill must very much diminish The Eureka tunnel will cheapen the cost of labour, but with the works of exploration which must be carried out it will not reduce the cost below an average of about $4; and, in spite of Capt. Hosking's way of understating the value of the ore, for which I am making allowance, I do not think the average of the ore will turn out to be more than $6 ore, so that for the next six months a profit of $2 a ton is the outside we can expect, and bearing in mind that we shall return about 4700 tons a month, it is easy to see that you cannot earn in the six months more than sufficient to pay a 7½ per cent. dividend. You must face that fact. I should not like to keep anything back, nor to take you by surprise, and I say that the outside dividend you must expect in October is 1s. 6d. per share, or at the rate of 7½ per cent per annum. Whether it will improve depends entirely on the amount of ore that is developed by the Eureka Tunnel, and by a shoot of great importance that was first discovered in July, 1882—about a month before I arrived at the mine. In the course of this month the 400 foot level will reach that shoot, and on the size and quality of that shoot and the way it is making depends much of the future working of the Plumas Eureka Mine.

The CHAIRMAN added that the main portion of the ore raised in the past year had come from this shoot. They had now arrived at the lowest level which they could drive, as they were now down to the line of the creek, and they would in future have to sink; but that would not be an important matter if the ore held good in depth, and, if it did, they would have a long and profitable future. Up to the present time there had been divided on the Plumas Eureka shares 337,942*l.* The dividend proposed would make 10 per cent. for the year, besides 5000*l.* carried to the reserve, and 3028*l.* carried forward. Having expressed his desire to give the fullest information in his power, the Chairman moved the adoption of the report and accounts. (Cheers.)

Mr. FREWER congratulated the shareholders on the very full and candid statement which the Chairman had made. He thought they must look upon the information as rather of a dark than a light character; but it was, indeed, only right that the shareholders should know their exact position. It was, however, to be remembered that the action brought against the company, which had been compromised, had resulted in a cost of something like 4000*l.*, which had been taken from the reserve fund; and, but for that, probably the directors would have seen their way to keep up the dividend. The Chairman said last year that, whichever way the matter went, it was not a serious one; but this showed how desirable it was not to prophecy till you know. However, they must take the rough with the smooth, satisfied, as they must be, that the mine was being managed, both here and abroad, in the best possible manner, and they could only hope for good results in the future. (Cheers.)

The CHAIRMAN, in reply, pointed out that in comparison with the damage which might be done by the breaking of a dam to get off at a cost of 4000*l.* was not a very terrible matter, and if in the future he could predict with as much certainty as he had last year he would not be far wrong. The outside mines were going on satisfactorily, and to counteract any impression that what he had said was very dark he would read the last few words from Capt. Hosking's report on the working of the Eureka Mine, Mr. Johns having been prevented by snowstorms from going to the mine:—"Taking into consideration the ore reserves outside of the Eureka Mine there is a much larger supply of ore in reserve now than at the close of the previous term, and we believe the mine to be in a more prosperous condition now than it has been for several previous terms." Nobody could look at the balance-sheet of the Eureka Mine without being struck with the wonderful reserves which were gradually being built up. The misfortune was that in the prosperous days of 15 per cent. dividends they did not build up a large reserve.

The motion was then put and carried unanimously.

The CHAIRMAN moved a dividend of 6d. per share on the Sierra Buttes shares, payable on the 9th inst.——Mr. GEAVES seconded the motion, which was agreed to.

The CHAIRMAN also moved the declaration of a dividend of 2s. per share on the Plumas Eureka shares, payable on the 9th inst.——Mr. FREWER seconded the motion, and it was adopted.

Mr. WRIGHT moved the re-election of Mr. Tendron, the retiring director, and in doing so spoke in highly complimentary terms of the services which Mr. Tendron has rendered to the company.——Mr. HOLDSWORTH seconded the motion, which was carried.

The CHAIRMAN having acknowledged his re-election, moved a cordial vote of thanks to Mr. Johns and the officers at the mines. They had had very anxious times to go through. Mr. Johns had had his ears frost-bitten; and Capt. James, owing to a journey across the mountain in the snow, was prostrated for some time. The company was very fortunate in having able, honest, and truthful officers. (Cheers.)——Mr. WRIGHT seconded the motion, which was adopted.

The meeting closed with a vote of thanks to the Chairman and directors.

GREAT LAXEY MINING COMPANY.

The half-yearly general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Wednesday

Mr. JAMES SPITTALL in the chair.

Mr. ALLEN (the London secretary) read the notice convening the meeting, and the following report of the directors:—

April 9.—The half-yearly balance-sheet and statement of accounts made up to Feb. 2 last, and the exhaustive report of the managers so recently as March 21 having been in the hands of the shareholders for some time, the directors have no very important change underground to report since the above were published. Some points have fallen off, whilst others have improved, but so far the changes have been favourable to the company. Since the published accounts were made up the raisings and sales have so improved the position of the company that the anticipation of a dividend held out in the Chairman's circular of March 25 has been realised, and the directors yesterday declared a dividend of 5s. per share, payable in 14 days as usual. The continued and increasing depression in the metal market is universally felt, and few mines are in a dividend-paying condition. It is only by judicious economy and careful supervision that the directors are enabled in such times as the present to declare a dividend of 25 per cent. upon the capital of the company. The shareholders will be pleased to learn that after a very protracted negociation with the Office of Woods the directors have succeeded in obtaining a concession in reduction of royalty. The royalty payable under their lease being one-eighth upon lead ore has been reduced to one-tenth. This reduction is not equal to what the directors sought for and expected, and they hope to obtain a more substantial reduction at no very distant period.—JAMES SPITTALL, Chairman, FREDERIC BROADBENT, RICHARD PENKETH, PAGETS MOSLEY.

The accounts and the agent's report were taken as read.

The CHAIRMAN said: Gentlemen, I think we have present about our average number of shareholders, but I did think that Great Laxey having forsaken its old traditions would have brought a larger number of shareholders together to-day. It has been a very unusual circumstance for Great Laxey to omit for once paying a quarterly dividend. However, it seems that the shareholders are perfectly satisfied with the management of the concern by the directors, and appear to content themselves with a report of the meeting, instead of coming personally. It is a matter of regret to us all—and I had the same announcement to make at the last meeting—that our respected Chairman, Mr. Dumbell, is unable to be present. Last year I expressed the hope that his physical infirmity was only of a temporary kind, and that to-day he would be able to occupy his usual position; but I am sorry to say that his infirmity has increased very considerably, and that in all human probability it is not likely that our Chairman will ever be in a position to travel this distance to attend in his usual place. No one will regret it more than himself. You all know the interest he took in Great Laxey in fighting any question that arose, and you know how his heart has been in it from first to last. His mental capacity is as vigorous as ever, and it will be satisfactory to you to know that although he is unable to move about Great Laxey is ever in his mind; and, in connection with the secretary, he attends rigidly to everything connected with the duties of the mines as heretofore, and I may say that not a day passes upon which the interests of the company do not occupy his attention. Unable to come to the office, the secretary attends upon him; and, therefore, so far as the interests of Great Laxey are concerned, in his hands they are by no means neglected. Of course it devolves upon the insular directors to take a deeper interest in the matter than they had previously done; but you may rest assured that so long as Mr. Dumbell is in his present position the interests of the mine will be carefully watched and attended to. Now, there are very few matters which I think it will be necessary to draw your attention to. The report of the directors is short, but if we analyse it I think we may find that there are five points of interest in it; two of substantial benefit to the shareholders, one of hope and one of regret. In the first place, we announce that we are able to declare the quarterly dividend. This is a very substantial consideration. Then we have the satisfaction of announcing that we have made an arrangement with the Woods and Forests for a reduction of the royalty, which is another substantial consideration. We have hope that the improvement which is noticed in the agents' report as a change in the mine—falling off here and increasing elsewhere—has been in favour of the company, and I am able to state confidently to-day that that hope has been realised, and the several points in the mine in the last few days have increased in value. Those I will draw your attention to shortly. Their regret—we must all regret—that so long as the depression in the metal market remains we cannot better to any great extent our present position, unless our raisings are considerably increased. The next point I would draw your attention to is the balance sheet. By a comparison of last half-year's working with the preceding half-year you will find that we have raised 100 tons of lead less. So far as blende is concerned we have an increase; we have raised 200 tons more blende than we did in the preceding half-year. Then as to our financial position in respect of the raisings and sales of our ores, although we have raised 100 tons less of lead, yet, fortunately, some copper came in, and we have been enabled to dispose of 200 tons of copper ore, and our working expenses have been 174*l.* less during the past half-year than in the previous one, and our sales have been 120*l.* less. Therefore, that leaves, at any rate, a balance in favour of the company upon the sales and expenses. Then as to our underground workings. During the past half-year we have extended about 370 fms. of levels, and by the use of our rock-drills and mechanical appliances we are now able to do an immense amount of work. The changes underground, which I may draw your attention to are these—In the 230 north the report, as published, puts the value at 1*l.* per fathom; it has now increased to 2*l.* per fathom. The 170 north end has improved from 12*l.* to 15*l.* per fathom—and that is a most important point. Then, as to the 185, an improvement has taken place since we left the island. I may say that a letter has been received this morning from the underground agents, which I will read to you. It is dated April 7, and says:—

"There is but little change in the mine since our general report of March 21, but what little alteration there is we are pleased to say is favourable. The 185 end north, in Dumbell's, is worth 30*l.* per fathom (it was worth 18*l.* per fathom in the report, and is immediately below the 170, which, as I have shown you before, is also improving from 12*l.* to 15*l.* per fathom). The end at the 230 is of a very remarkable appearance, there being a large cavity filled in loosely with rocks and spar and quartz crystal."

If we get into anything good there we must bear in mind that we are in whole ground up to the adit—that is 60 fathoms, and in the level above there are some fathoms of very valuable ground, therefore we have every expectation that the improvement in the 243 will be permanent, and will realise a considerable quantity of ore. So far as the underground working is concerned it is to the directors very satisfactory, and it must be also satisfactory to the shareholders. Then as to the machinery. Our machinery is very extensive, and is kept in perfect condition. You must remember that all the expenses connected with the repairs and renewals of the machinery come out of our current expenses. We have in addition a great amount of dead work to perform which brings us in nothing, but by our lease we are bound to perform it, and it is absolutely necessary that in a mine like Great Laxey the ends should be pushed forward in order that new discoveries may come in. This, of course, runs away with a great portion of our income, and these matters have to a certain extent accounted for the fact, in connection with the depression in the price of metals, which prevented us last quarter from paying the usual dividend. We have, however, redeemed ourselves this quarter, and I hope we shall continue to pay our dividends as hitherto. Then we have the reduction of the royalty to bring before you. You would very likely imagine that old and valuable leases like the Great Laxey Company would have had but very little difficulty in obtaining during this trying time a very considerable restriction of their royalty. The lords of the manor throughout England generally have recognised the fact, and have made very large concessions to their tenantry. Great Laxey, however, has not been so fortunate, as might reasonably have been expected. By our lease the royalty is one-eighth, which is the highest royalty paid by any mine in existence. We have endeavoured to get the royalty reduced to something that we considered would be fair and reasonable, and more in accordance with the terms under which we worked the mine under the old lease; but, after great difficulty and a very great amount of negociation, we have succeeded in obtaining a concession from one-eighth to one-tenth. Now, gentlemen, we must be thankful for small mercies. We are entirely in the hands of the office of Woods and Forests in this matter; but you may rest assured that, while we see it is necessary, proper, and prudent for Great Laxey to acquire further reductions of the royalty, we shall not relax our efforts in endeavouring to obtain it; and I think I may say

at there is some prospect that our reasonable demands will be recognised by e Crown, and by the next time we have the pleasure of meeting you here I ope we may be able to announce a further reduction. The Chairman then moved "That the accounts and the directors' and manager's reports be passed, and that the report of the directors be published and circulated amongst the shareholders as hitherto."

Mr. F. H. TURNER seconded the motion.

Mr. CUFF asked whether the accounts could not be placed before the shareholders in a less awkward form? He referred to the size of the paper, not to the form of the accounts.

The CHAIRMAN replied that the question of the form of the accounts was fully considered some years ago, and the present form was regarded as the best that could be adopted. The balance-sheet embraced several statements, and it could not be printed on a smaller sized paper.

The motion was then carried unanimously.

Mr. TURNER moved a cordial vote of thanks to the Chairman, directors, managers, secretaries, and other officers of the company. They had had an anxious time to go through lately, but everything that could be done had been done in the interest of the company, and they could only hope for better times in regard to the price of metals.

Mr. HERBERT CROSS seconded the motion, and it was adopted unanimously.

The CHAIRMAN, in returning thanks for the compliment, said: I can assure you we have had no easy time of it during the past six months. The directors have done all that they possibly could to keep up the mine in its present flourishing condition. There are few mines at the present time which are able to pay a dividend, and it is very satisfactory to the directors, as it must be to the shareholders, to feel that they have been able to secure that in the present quarter; but it is only by careful attention and judicious supervision that under the present circumstances a dividend can be secured. On behalf of the Chairman I have to thank you, and also to express his thanks for the confidence which you have bestowed on the directors, and particularly on him. I may say that although the attendance at this meeting is by no means so large as I expected, yet the directors have had sent to them proxies representing upwards of 5000 shares. I take this opportunity of thanking, on behalf of the Chairman, those who supported him and the directors by their proxies—I can only do it through the means of the Press. I have much pleasure in thanking you for your consideration.——The meeting then closed.

Registration of New Companies.

The following joint-stock companies have been duly registered:—

EASTBOURNE AND EAST SUSSEX CONSERVATIVE CLUB (Limited).—Capital 5000*l.*, in shares of 1*l.* To provide and maintain a club, reading-rooms, and hall for public meetings. The subscribers are—W. Taylor, Hastings, 50; J. Pring, Eastbourne, 5; C. Tomkinson, Eastbourne, 25; H. W. Sheeny, Eastbourne, 5; T. B. Rowe, Eastbourne, 5; T. S. Dilston, Eastbourne, 5; R. Tomkinson, Eastbourne, 15; C. G. Champion, Eastbourne, 10.

THE SCOTTISH STEAM SUPPLY COMPANY (Limited).—Capital 125,000*l.*, in shares of 5*l.* The application of gas for supplying light, power, and steam, to factories and other works, and the manufacturing of bricks, tiles, cement, &c. The subscribers (who take one share each) are—W. Annies, Croydon; H. H. Whitty, Richmond; H. Perkins, Mile End; G. W. Peacock, Mile End; F. G. Young, Clintonplace; H. T. Hathan, Stepney-green; A. Jacob, Poplar.

THE ANGLO-SARDINIAN LAND, MINING, AND TIMBER COMPANY (Limited).—Capital 50,000*l.*, in shares of 1*l.* To acquire by purchase or otherwise lands, forests, and mines of every description, and other property, in the Island of Sardinia or elsewhere. To act generally as timber merchants, miners, and general agents, and for such purposes to do all things necessary for carrying on such business. The subscribers (who take one share each) are—J. H. Carter, 12, Dickens-street, gentleman; J. W. Home, Press Association, journalist; F. R W. Gummers, Hackney, printer; A. J. Benjamin, 32, Sutherland Gardens, gentleman; G. Bennett, 37, Tremlett Grove, secretary; G. V. Coots, Longfield-court, timber merchant; O. W. Leggatt, Inner Temple, gentleman. (No Articles of Association have been registered.)

THE YORKSHIRE SHODDY AND FLOCK COMPANY (Limited).—Capital 10,000*l.*, in shares of 5*l.* Dealing in and manufacturing of rags, shoddy, flocks, and bedding, &c. The subscribers (who take one share each) are—J. E. Finchett, Liverpool; J. Finchett, Liverpool; J. Dickson, Liverpool; W. Gides, Seaforth; R. Handley, Liverpool; G. G. Rayner, Bootle; J. F. Oates, Liverpool.

MONTE VIDEO PORT COMPANY (Limited).—Capital 3,000,000*l.*, in shares of 10*l.* To obtain concessions, and erect and maintain a breakwater, to act as a harbour and dock company, board of commerce and trade, pilotage, lighthouse, and navigation board, &c. The subscribers (who take one share each) are—W. B. Cranwell, 4, Finsbury-street; R. Revett, Ealing; T. C. Watson, Dovercourt; J. S. Middleton, 16, Marloes-road; C. Howard, 17, Philpot-lane; A. S. Hughes, Lee; E. G. Weaving, 24 Coleman-street.

THE AMERICAN PASTORAL COMPANY (Limited).—Capital 300,000*l.*, in shares of 10*l.* To acquire by purchase or otherwise, sell, lease, settle, improve, and cultivate lands and hereditaments situate in Texas, or elsewhere in the United States. To breed and deal in all kinds of stock, cattle, horses, sheep, and produce, &c. The subscribers are—J. W. Barclay, 5, Clarendon-place, 1000; J. H. Sparks, 4, Ryder-street, 1000; A. Longsdon, Denmark Hill, 1000; J. Duff, Colorado, 1; W. A. Hunter, Temple, 100; W. Cowan, 9, New Broad-street, 1; G. C. Singer, 1, Great Winchester-street, 1.

JABEZ JAMES AND COMPANY (Limited).—Capital, 10,000*l.*, in shares of 100*l.* To purchase and continue an engineering business carried on by J. James, late of 39 and 40, Princes-street, Commercial-road, Lambeth, deceased, and to sell and grant licenses to use certain patents and shares in inventions connected therewith. The subscribers are—J. Iniry, 28, Southampton-street, 20; T. Pearce, 3, Suffolk-lane, 15; W. James, Bagshot, 5; A. G. Hamilton, Wimbledon, 6; R. Daniel, Addiscombe, 5; A. Shorter, Hampton Wick, 5; T. W. Horne, Herne Hill, 4.

MANCHESTER COMMERCIAL ADVANCE AND DISCOUNT COMPANY (Limited).—Capital 50,000*l.*, in shares of 1*l.* Making advances upon real or personal property, or other kinds of property, discounting bills and promissory notes, &c. The subscribers (who take one share each) are—W. G. Darlington, Manchester; J. Storry, Manchester; R. Cooper, Manchester; G. Cooper, Manchester; W. Benson, Manchester; J. Wright, Barton; J. H. Clayton, Hulme.

THE OXFORD OCHRE AND OXIDE COMPANY (Limited).—Capital 10,000*l.*, in shares of 10*l.* To acquire and carry on a colour and paint manufacturing business at King's Sutton. The subscribers (who take one share each) are—W. Cook, Birmingham; S. Lloyd, Birmingham; A. A. Corder, Birmingham; J. W. Bayles, Birmingham; A. Palmer, Birmingham; J. Read, Sutton Coldfield; H. angrick, King's Sutton.

The CROMER PIER COMPANY (Limited).—Capital 25,000*l.*, in shares of 5*l.* To construct and maintain a pier or landing place at Cromer. The subscribers (who take one share each) are—J. B. Nunpleby, Green Lanes; J. M. Flegg, 7, Marlborough-place; J. Puttick, Willesden; C. W. Larkin, Stratford; A. C. Leslie, Redbrooke; W. Gibzean, Peckham; G. R. W. Yorston, Peckham.

THE OCEAN MARINE SYNDICATE (Limited).—Capital 12,000*l.*, in shares of 10*l.* To acquire and deal in patents relating to the protection and saving of life at sea. The subscribers (who take one share each) are—J. G. Turney, Leadenhall House; H. R. Bullock, 25, Swan-street; R. A. Burnett, Shepherd's Bush; A. de Metz, 15, Finsbury Circus; N. W. Chittenden, 62, Gracechurch-street; J. E. Harding, 30, Budge-row; A. North, 20, Lady Somerset-road.

THE ISLE OF WIGHT CEMENT COMPANY (Limited).—Capital 15,000*l.*, in shares of 5*l.* To acquire the property and carry on the business of the Isle of Wight Chemical Manure and Agricultural Supply Association (Limited).—The subscribers are—J. Jolliffe, Boudchurch, 184; J. J. Jolliffe, Bonchurch, 2; A. E. Jolliffe, Bonchurch, 2; H. W. Jolliffe, Bonchurch, 2; E. Parr, Bonchurch, 100; D. T. W. Dawe, Bonchurch, 60; J. W. F. Barfield, Ryde, 30.

MEISENBACH COMPANY (Limited).—Capital 10,000*l.*, in shares of 1*l.* To carry on a lithographic, chromographic, photographic, &c., business in connection with certain patents. The subscribers are—E. Hanson, 4, Chandos-street, 1000; E. Johnson, 1, Castle-street, 1000; F. L. Pine, Strathfield, 1000; H. Paddison, 3, Castle-street, 1; T. J. Ward, 18, Ampton-street, 1; C. M'Call, Lee, 1; E. Pick, 28, Queen's-road, 1.

THE KRISTIOR (HUNGARY) GOLD AND SILVER MINING AND SMELTING SYNDICATE (Limited).—Capital 50,000*l.*, in shares of 1*l.* To adopt and carry into effect an agreement made between G. Shenton of the one part and F. Bracher as trustee of the other. To purchase or otherwise acquire lands, estates, mines, mineral grants, mining rights and privileges, ores, minerals, and other properties situated in Hungary or elsewhere, for the purpose of carrying on the general business of mines, smelters, washers, and reducers of ores, minerals, and other auriferous substances; and to carry on all operations incidental to the foregoing. The subscribers (who take one share each) are—C. Warren, 460, King's-road, traveller; J. Warren, Walham Green, builder; T. Sanerby, Fulham, no occupation; R. Hodson, 108, Marylebone-road, gentleman; F. G. Littell, 41, Rycroft-road, gentleman; C. J. Leslie, Haverstock Hill, gentleman; L. H. Keighley, Dalston, gentleman. Sir William Smith, Bart., is to be the first Chairman. The number of the directors must not be less than three or more than seven.

THE CERVANTES SILVER MINES (Limited). — Capital 300,000*l.*, in shares of 1*l.* To purchase or otherwise acquire and work mines, minerals, and mining rights, lands, hereditaments, &c., in the province of Murcia, Spain, and in particular the lands, minerals, and mining rights, situated near Mazarron, Carthagena, acquiring along with them the ore houses, plant, machinery, stock, implements, and other effects, and to carry on the business of mining, quarrying, and dealers in and exporters of ores and other mineral substances, and to fully develope the mines acquired by this company. The subscribers (who take one share each) are—G. Lomer, 3, Loughborough-park, esquire; K. S. Ingall, Peckham, accountant; E. C. Sinckler, 1, Leadenhall-street, accountant; P. Thaine, Blackheath, accountant; T. Early, 110, Cannon-street, general agent; E. D. Thornburgh, 126, Elgin-crescent, esquire; J. S. Safe, 1, Howick-place, captain.

FREDERICK'S VALLEY GOLD MINING COMPANY (Limited).—Capital 40,000*l.*, in shares of 10*l.* To purchase or otherwise acquire and work real or personal property, gold mines and other mines, minerals and precious stones, at or near Frederick's Valley, or elsewhere, in Australia, and to carry on all operations incidental to the business of a general mining company. The subscribers (who take one share each) are—The Duke of Manchester, Kimbolton Castle; H. Durant, Junior, United Service Club, major; J. Collinson, 20, St. Helen's Place, merchant; W. E. Forster, 80, Eccleston-square, M.P.; A. H. Good, 395, Holloway-road, gentleman; C. Tottenham, 9, Stratton-street, gentleman; J. A. Travers, Ringwood, gentleman; G. R. Leverson, 50, Gracechurch-street, merchant; D'A. Wentworth, Junior United Service Club, gentleman; F. K. Reeve, 44, Wimpole-street, widow; E. Wentworth, 20, Hyde Park Gate, gentleman; the Duchess of Manchester, Kimbolton Castle. The following gentlemen comprise the first board of directors—The Duke of Manchester, J. Collinson, W. E. Forster, G. K. Leverson, and Sir T. S. Tancred. The qualification is fixed at 20 shares.

THE CARDINGTON BREWERY COMPANY (Limited). — Capital 20,000*l.*, in shares of 10*l.* To purchase and carry on an established brewer and maltster's business near Bedford. The subscribers are—J. Lickman, 65, Finchley-road, 30; M. Wenstone, Shepherd's Bush, 30; J. E. Page, Bedford, 30; E. Roberts, Leicester, 30; W. Nightingale, 5, Lonsdale-square, 30; H. Brooks, Leicester, 1; T. Watts, Leicester, 1.

THE WINDERMERE LAKE SIDE HOTEL (Limited).—Capital 20,000*l.*, in shares of 50. To purchase and maintain a certain hotel, and to carry on in connection therewith, an hotel-keeper's business in all branches. The subscribers (who take one share each) are—W. Pitt, Manchester; C. Pitt, Manchester; T. R. Lenson, Manchester; J. Farron, Manchester; W. S. Wanklyn, Manchester; E. C. Condrey, Manchester; F. Anthony, Rusholme.

THE CEARA HARBOUR CORPORATION (Limited). — Capital 200,000*l.*, in shares of 10*l.* To acquire certain concessions, and undertake, carry out, and maintain different public works in the Empire of Brazil. The subscribers (who taken one share each) are—A. Gutensohn, Mile End; R. Lange, 93, Bishopgate-street; G. F. Tucker, 6, Crosby-square; V. C. Knight, Baldhorn's Park; D. Forbes, Wardrobe Chambers; G. Fraser, 2, Tokenhouse Buildings; J. L. Morrison, Blackheath.

BRITISH MINING: ITS HISTORY AND PROSPECTS.

Originality in a work professing to give the history of such an ancient and extensive industry as British mining is not only uncalled for, but would, to a great extent, defeat the object of the book, that which is required being a fairly complete and reliable record of all ascertainable facts, no matter whence they have been culled, nor how frequently they have been reproduced. The accuracy of this view has evidently been thoroughly recognised by Mr. Robert Hunt in the handsome and exhaustive volume—British Mining: a Treatise on the History, Discovery, Practical Development, and Future Prospects of Metalliferous Mines in the United Kingdom. By ROBERT HUNT, F.R.S., Keeper of Mining Records. London: Crosby Lockwood, and Co., Stationers' Hall-court—recently announced in the *Mining Journal*, and now issued. It appears to contain nothing novel nor striking, but is a sound, business-like collection of interesting facts, put together in a manner that will make them generally attractive, and cause many to comprehend that mining is by no means the lottery which some have pretended, but an industry which, if honestly and energetically carried on, is not only capable of being made remunerative to those engaged in it, but beneficial to the entire community. The mineral resources of the United Kingdom have, says Mr. Hunt, been far in advance of those of any country in the world. The annual value of the metalliferous ores and earthy minerals raised has approached 80,000,000*l.*, the result of the difficult and dangerous labours of more than 50,000 miners, directed by a large staff of educated engineers and experienced agents.

The author handles the subject under four sections, first giving an introductory sketch of the progress of mining from the time of the aboriginal Kelts until Queen Elizabeth introduced German miners into this country, and then continuing the account until the introduction of draining by steam-power at the end of the last century, thus preparing the way for sections on the formation of mineral deposits, on practical mining, and on the future prospects of British mining. In the opening chapter of the section on the formation of mineral deposits, Mr. Hunt remarks that the uneducated toiler after subterranean wealth, following without examination in the footsteps of his father, satisfies himself with industriously digging into the earth, rather pleased than otherwise with the phrase, "It is only by cutting the ground that the metal is found," thus admitting his ignorance of the operation of any law, the miner sagaciously declaring of any metalliferous ore, that "where it is, there it is." The consequence of this is, he continues, that actual mining gives us but little evidence over long periods of time of any practical advance. This may be an unpleasant admission to make, especially when an author who was long a Professor in the Government School of Mines has to make it; but it is, unfortunately, true that actual mining yields no more evidence—that is to say, utilisable evidence—when conducted by Associates of the most renowned Schools of Mines than when left to the tender mercies of the uneducated toilers whom Mr. Robert Hunt pities. It is an indisputable truth that science, unless the mere ability to follow a lode be dignified with that name, is absolutely worthless until the mineral is found; since the most lamentable and silly failures—the Indian gold mines to wit—have been precisely those where the explorations and subsequent operations have been embarked in upon the recommendation and under the guidance of so-called scientific miners—mining school graduates, doctors of philosophy, and the like. One of the most successful of recent miners—the late Mr. John Taylor—was congratulated by the Chairman of the Don Pedro North del Rey, in one of the few years in which that mine paid dividends, upon his judgment as a miner, the Chairman implying that his own judgment had secured the success of Don Pedro and entitled him to rank with John Taylor as a successful miner. Mr. Taylor replied: Yes, judgment is a good thing, but we keep on pegging away and I am always very thankful for a little luck, as it gives us larger dividends. The mining schools can teach a man how to drive through hard ground economically, how to work treacherous ground without letting the roof down upon his head, and so on, but they can never teach him to determine even the probable value of a deposit of ore which he has not seen, nor even its probable existence, unless it be a deposit in stratified rocks. To invest money on the recommendation of an "uneducated toiler," who has not actually worked in the district upon which he reports, has proved to be exceedingly speculative; to do so on the recommendation of a professional reporter, who has acquired the greater part of his knowledge "at grass," has proved to be infinitely more so. At present professional reporters are fashionable, and the dividends of mining infinitessimal from the mines enjoying their favour.

The amount of information which Mr. Hunt has brought together is enormous, whilst his position and experience have enabled him to preserve most of the wheat without the chaff. The section on practical mining gives as clear an outline of the subject as the capitalist or amateur will care to possess, whilst that on the future prospects of mining, which deals chiefly with the way in which mining operations will be carried on—will be generally acceptable. The volume is embellished with 230 illustrations, and, as a whole, appears likely to convey more instruction upon the subject than any work hitherto published.

QUICKSILVER.

	1883.		1884.
Imports from Jan. 1 to March 31, bottles about	11,932	... about	30,071
Exports " " " "	12,547	... "	12,706
Imports for March..... " "	8,300	... "	20,328
Exports " ..... " "	3,348	... "	3,413
Price per bottle, about.....	£5 10	... "	£5 10

Stock in London to March 31, 1884, roughly calculated, is about 92,000 bottles.

J. BENNETT BROTHERS.

London, April 9.

VICTORIA (VENEZUELA) GOLD COMPANY.

SIR,—I have been consulted by the directors of the Victoria Gold Company (Limited) with reference to a letter published in the Supplement of last week's *Mining Journal*, which letter is dated from Chile de Guayana, Dec. 12, and is signed with the initials "C. G. C.," and am instructed by them to call your attention to the fact that the statements therein contained so far as they relate to the Victoria Gold Company and to Mr. Danby, the manager, are with one exception entirely unwarrantable. The only statement that has any real foundation is that made by the writer of the letter, and with which all who have seen the property agree:—"That the Victoria property is really a valuable acquisition, and it is certain that the force of its merits will make its way, and Mr. Danby deserves the thanks of the company in placing it in their way.'

The real facts are that to the personal knowledge of one of the directors, who has lately visited the mines, the machinery was upon the ground at the date of the letter, and is now actually at work crushing the ore. My clients, the directors, are naturally exceedingly annoyed at the statements contained in the letter, which seem to them, and I must say with reason, to be made maliciously, and with the view of injuring the property and prospects of the Victoria Gold Company and Mr. Danby, and as the result has caused at present great annoyance and some loss, I have to ask you to forthwith publicly retract the unfounded statements contained in that letter. . . . The reckless nature of the statements contained in the letter in question is strongly evidenced by the fact that so far from it being the intention of the company to engage the services of Mr. R. M. White therein named, his very name, as I am instructed, was unknown to the directors of the Victoria Gold Company until it was seen by them in the print of the letter in question.

Fenchurch-street, April 10. ROBERT CHARLES.

SOUTH-WEST DISTRICT MINING BOARD.

[COMMUNICATED.]

On Wednesday, April 2, the above Board met at the King's Head Hotel, Newport.—Present: Messrs. W. B. Nash (Chairman), E. J. Grice (Vice-Chairman), E. Crawshay; Wm. Needham, M.E., Newport; J. T. Thomas, M.E., Forest of Dean; W. Burchall, Beaufort; W. Williams, Rhymney; — Sedman, Ebbw Vale. The meeting was also attended by Messrs. T. Cadman, Her Majesty's Inspector of Mines, and R. D. Bain, Deputy Inspector of Mines.

Before proceeding with the ordinary business of the Board, the Chairman, Vice-Chairman, and all the gentlemen present desired to express their heartfelt sympathy with Her Gracious Majesty and Her Royal Highness the Duchess of Albany on the painful domestic trial and the great loss they have sustained by the recent sudden death of His Royal Highness the Duke of Albany, and that the same be recorded in the minutes of this meeting.

The minutes of the ordinary meeting, held on Jan. 23, having been read and confirmed, Mr. NEEDHAM was called upon to proceed with his motion relative to the 30th Section of the Coal Mines Regulation Act, referring more particularly to the urgent and imperative necessity of our Legislature making further provision for granting a certain class of Certificate of Competency to qualify firemen for their respective duties in a fiery colliery. He replied that as the Board will now have to appoint a successor to the late Mr. C. A. Harrison, his proposition should stand over *sine die*, or rather until Her Majesty's Commissioners, appointed to enquire into accidents in mines, and the possible means of preventing their occurrence or limiting their disastrous consequences, had completed their investigations and published their report.—Adjourned accordingly.

Agreed that the next examination for Certificate of Competency be held at the Guildhall, Bristol, on July 8, 9, and 10, commencing on July 8 at 10 A.M., and on July 9 and 10 as may be notified by the examiners.

The CHAIRMAN called the attention of the Board to the great loss they had sustained in the death of their late colleague and examiner, Mr. C. A. Harrison; the VICE-CHAIRMAN and others having expressed similar sentiments, it was resolved and agreed—"That the South-West Board, in order to express their feelings on this lamentable dispensation, desire to make record that they deeply regret the demise of their late respected colleague, Mr. C. A. Harrison, M.E., who died at his residence, Fishpounds, Bristol, on March 19, aged 63 years. His earnest attention and valuable services in connection with this Board was well understood and universally appreciated, especially as one of the examiners. Having many years practical experience in every variety of colliery operations, and truly estimating the object and provision of the Mines Regulation Act with regard to effective management and personal safety of the mine, he was particularly cautious that every candidate recommended for Certificate of Competency by this Board should without favour or affection be worthy of that recommendation, and that the South-West Board should be second to none in performing its duties systematically and without reproach." Agreed also—"That the secretary be requested to forward a copy of this record to his bereaved widow."

Mr. NEEDHAM, addressing the chair, said it was unfortunately his painful duty to propose a successor to their worthy demised friend, whose liberal spirit, social manner, conciliatory disposition, and sound practical knowledge was conspicuous to every person with whom he associated, and to none more so than to himself and his co examiner, Mr. J. T. Thomas. From the foundation of this Board 11 years ago, they worked cordially, confidentially, and indefatigably together, without which it would have been a delusion to expect peace, unity, and stability for so many years at this Board. Whatever may have been or hereafter may be the individual opinion of this Board on any subject or matter brought before it, it is indispensable the Examiners' Act in unison and without prejudice or inclination to intentionally obstruct or domineer one over the other. Bearing this important point in view, and having consulted his colleague and other members of the Board, he had no hesitation in proposing and recommending Mr. W. Morgans, C. and M.E., Guildhall, Bristol, as being morally, physically, and professionally competent to occupy this honourable position, and one that would maintain with honour and integrity the status and constitution of the South-West Mining Board.——The VICE-CHAIRMAN most cordially seconded the proposition.

The CHAIRMAN, in a most energetic and eulogistic speech, proposed another skilful and popular mining engineer connected with the Somersetshire collieries, which was seconded *pro forma* by Mr. E. CRAWSHAY. No other member supporting the proposition, Mr. W. Morgan was unanimously declared the favourite applicant, and that the Home Secretary be respectfully requested to confirm the

appointment; and that an extraordinary meeting, in accordance with Schedule II. of the Mines Regulation Act, be held at the King's Head Hotel, Newport, on Wednesday, April 16, at 2·30 P.M., for the exclusive purpose of ascertaining the reply from the Home Secretary, and making a record thereof. The next ordinary meeting of the Board is to be held at the Guildhall, Bristol, on Friday, July 11, commencing at 12 o'clock noon.

GOLDEN SULPHURET OF ANTIMONY.

Some improvements, which have reference to the method, or art, of producing that chemical compound of antimony and sulphur which is commonly known as the "golden sulphuret of antimony," but which, in technical nomenclature, is designated as the "penta-sulphide of antimony," have been invented by Mr. THOS. SANDERS, of Haverhill, Massachusetts, U.S. This compound has usually been produced by treatment of the grey sulphide of antimony, or native product known as "antimony glance," either in the crude condition of the ore or separated by fusion from the gangue with which it is found associated. Such grey sulphide, when chemically considered apart from impurities, is the trisulphide of antimony, and the penta-sulphide has been produced therefrom in the following mode, among others:—The native product, after being pulverised, is introduced along with a quantity of free sulphur, into a solution of carbonate of potash or carbonate of soda made caustic by the addition of quick lime, and is boiled therein for several hours until the trisulphide of antimony and free sulphur so introduced have been dissolved. The solution thus obtained is freed from the lime and other sedimentary and insoluble substances either by allowing the latter to subside and drawing off the supernatant fluid or by filtration, and then it is treated with hydrochloric or sulphuric acid, which precipitates the golden sulphuret of antimony.

The waste of antimony, and of the sulphur originally introduced into the alkaline solution, and not converted into golden sulphuret, is, it is claimed, avoided by Mr. Sanders' process, and much time and labour are also saved. The solvent which he employs is a saturated solution of caustic soda or of caustic potash, and he dissolves therein the native sulphide of antimony and the free sulphur separately, and afterwards adds the two solutions together. Thus—he introduces into a saturated solution of caustic soda a quantity of pulverised native sulphide of antimony, and stirs or otherwise agitates the same therein until fully dissolved. He also introduces into another saturated solution of caustic soda a quantity of crude brimstone or free sulphur in any of its ordinary commercial forms, and dissolves the same therein by boiling or otherwise applying heat to facilitate the operation. He allows this sulphur solution to cool, and then pours it into the sulphide of antimony solution, and stirs the whole mixture to promote chemical reaction, which is attended with the evolution of considerable heat. When the fluid mass has cooled he dilutes it largely with water, and so reduces its specific gravity as to readily permit the insoluble impurities, such as rock, iron, and other foreign matters, to subside. The aqueous solution is then drawn off, and the golden sulphuret of antimony is precipitated therefrom by the introduction therein of either sulphuric or hydrochloric acid.

The proportions of the chemical reagents mentioned, which Mr. Sanders has found best adapted to accomplish the desired results may be stated as follows:—For each pound of pulverised native sulphide of antimony, averaging about 82 per centum of trisulphide of antimony, he employs eight fluid ounces of saturated solution of caustic soda, and for every 2 lbs. of free sulphur he employs a saturated solution of caustic soda containing 1 lb. of anhydrous soda or sodic oxide. Of this sulphur solution he takes eight fluid ounces for mixture with the trisulphide of antimony solution last mentioned. He has also found it desirable, in order to attain the best results, that the trisulphide of antimony should be dissolved in the saturated solution of caustic alkali at the temperature of about 60° Fahr., and that the sulphur solution should be cooled down to about the same temperature when it is added to the antimonial solution. Caustic potash may be substituted for caustic soda, or may be used in connection therewith; but the latter, being less expensive, would, for that reason, be preferred. The proportions of the caustic solvent employed may vary from those hereinabove specified, but any considerable variation therefrom would cause waste of material, and be undesirable on the score of economy.

The Sanders process is distinguished from the old processes in several important particulars. The solvent employed is a saturated solution of caustic alkali. The trisulphide of antimony is dissolved therein not only without boiling but at a cool temperature. The free sulphur is dissolved before being added to the antimonial solution. The reactions are such as to convert substantially all of the antimony and sulphur contained in the mixed solutions into the golden sulphuret of antimony or pentasulphide of antimony without material waste, and the whole process may be conducted and completed within a very short time—(say), from 15 to 20 minutes, or even less.

FOREIGN MINES.

ALMADA AND TIRITO CONSOLIDATED SILVER.—The directors have received advices that Mr. House arrived at the mines on March 10. The week's leaching ending March 8 produced $7108. The bullion sent to the Mint for the week ending March 13 realised $6970·68, and 49 bags of precipitate, valued $4174·93, had been shipped to Germany.

BARANCANNES.—J. Garland, Report for March: Engine-shaft: The shaft was squared down full size to the bottom of the old 24 fm. level, 3 fms. 1 ft. 9 in. last month, making the total depth of shaft 30 fms. 4 ft. 9 in.; the winding division cased and divided off to the back of the level, and 4 ft. sunk below the level. We hope to sink deep enough this month to be able to fix the cistern for plunger lift without risk from subsequent blasting. Unfortunately we have now a rather considerable quantity of water in the shaft, and sinking will be somewhat retarded thereby until we are in a position to fix the standing and sinking lifts; this we hope to accomplish in May. We are just now having torrents of rain, which have greatly increased the water in the mine, and made it difficult to keep the mine drained with the old winding arrangements. The new winding-engine only wants a few minor fittings attached to be ready to work; there remains further to be erected the new shaft tackle or pithead gear and the balance bob.—Dressing: We started the new steam dressing machinery on the 26 ult. The engine and crusher from Sandycroft Foundry work exceedingly well, and are thoroughly effective machines. The sizing trommel and three sets of continuous jiggers (from the same foundry), though the time has been too limited to adjust them exactly to the class of stuff we have to treat, bid fair to give satisfactory results. Tangye's steam pump and condenser appear well adapted to our requirements, and are doing good work. We are a little hampered just now, owing to the difficulty we have in keeping up steam, there being too little draught, but we hope to remedy this in a few days by adding on a few feet to the boiler chimney. If the weather turns out favourable—at present surface operations are frequently suspended on account of the exceedingly heavy rains—we shall now carry on the dressing of the surface reserves regularly, and hope to have a small parcel of ore ready for shipment by the end of April. We must now arrange as soon as practicable to put in some round buddies to dress the finer ores.

BELT COPPER.—A. Brand, March 24: My last report was dated the 17th inst. I now have to report as follows:—Champion: The stope in No. 2 shaft east still continues to look remarkably well both in stamp rock and barrel work. The piece of copper I referred to in my last has now been blasted out, and lies at the foot of the shaft ready for hoisting. It is too large, however, to go into the skips as it now stands, so we shall hoist it on Saturday afternoon by means of a drag. It will weigh in all probability about a ton when cleaned. There is still a piece of this same mass not yet blasted out, and it looks as though it might also be a large piece. In the large stope referred to in my last we have risen in the hanging over 15 ft., and the vein still continues good, mostly in epidote, rich in stamp copper. The west end of No. 2 stope east looks poor, but the east end shows both good stamp and barrel work. No. 2 stope west looks better than it did when I last reported, the copper being mostly towards the hanging-wall. We are carrying the No. 1 stope east about 1 ft. high and about 40 ft. long; it is now about 30 ft. above the back of this level. This stope is turning out some good stamp rock and barrel work. In my last I informed you that we had ceased stoping on the No. 1 stope west on account of water. We have now recommenced further west than before, and in a few days we shall have a large surface exposed of the rich chute of copper which we worked before. All the stopes in the mine look very favourable, with the exception of No. 2 east, to which I have before referred. In the shaft-house we have now lying between 2 and 3 tons of barrel work hoisted last week. Knowlton level continues the same as before, producing stamp but no barrel work.—Wolseley: As mentioned in my last the vein here is exactly similar to that in the Knowlton level. Within the last day or two, however, we have found some small pieces of barrel work. After we have sunk about 8 ft. more we shall commence driving west to No. 1 Knowlton level east. By the beginning of April we shall also be ready to begin driving No. 2 Knowlton level east.

Mill: Last week we stamped the 100 tons of Knowlton rock just as it lay on the burrows. A sample of the Knowlton sand as it came from the stamp-head has been sent to Houghton to be assayed, also samples of the waste sand running away from the slime-tables. To-day we have commenced running the mill night and day. Our ore bins and shoots work well, and we are able to load our cars in a very little time. We are getting in the foundation of the second head as speedily as possible. Nothing further to report.

— The following cablegram, dated April 5, was received from Mr. Brand:—"Found mass, probably 7 tons in the last stope of the Champion."

CAPE COPPER.—OOKIEP.—Captain Lanksbury, Feb. 29: The ground in the 10b fm. cross-cut, north-east of No. 36 winze, is generally composed of quartz, but no change has occurred since last report. The 92 fm. level No. 17 continues to produce ½ ton of copper ore per fathom, and looks promising for an improvement. The 92 No. 1, east of new shaft, is unproductive. No. 57 winze sinking below the 92 yields a little copper ore. The two levels in the back of 92, east of No. 51 winze, and west of No. 45 winze respectively yield 6 tons of copper ore per fathom. The 80 No. 29, north of the 20 level, produces 2 tons of ore per fm. The ground in the 80 fm. cross-cut south-east of No. 43 winze yields 2 tons of copper ore per fathom. The 68 cross-cut north of No. 54 winze has become unproductive, and is consequently suspended. The men are put to drive a new cross-cut south of No. 11 level in the 58 for the purpose of effecting communication with a stope in the back of the 68. The ground in the 68 cross-cut north of No. 17 level has become easier for driving, and yields stones of copper ore. Rapid progress is being made in driving the 68, south on flookan course, but nothing of value has yet been intersected. The ground in the 68, No. 16, south-east of new shaft, contains large quantities of iron, with spots of copper ore disseminated throughout. The ground in the 58 No. 11, east of No. 20 winze, is chiefly composed of quartz, and is now yielding saving stuff. The 26, south-west of new shaft has declined in value, but is still producing 1 ton of rich copper ore per fathom. The ground in the 26, north east of new shaft, is unproductive.

SPECTAKEL.—Capt. Lanksbury, Feb. 25: The ground in the 80, south-east of Incline, is composed chiefly of a hard cystalline rock, and is sparey for driving. The stope in 75 yields 2 tons of copper ore per fathom. The ground in the 75, north-west of No. 2 cross-cut, has considerably improved in appearance, now yielding about ½ ton of copper ore per fathom, and looks promising for further improvement. The stope in the bottom of 64 yields 3½ tons of copper ore per fm. The intermediate level in back of 53 produces saving stuff, but not to value. The ground in the 53, north of cross-cut, produces occasional stones of copper ore.

TRIAL MINES.—Capt. Lanksbury, Feb. 29: The ground in the 40, east of south level, has fallen off in value; it is now composed of a large proportion of mica, felspar, and a little copper ore. The 40, west of south level, is yielding 1½ ton of copper ore per fathom, and has a most favourable appearance. The winze in the 10 has not yet met with anything valuable; it is now temporarily suspended for the purpose of developing more quickly the bottom levels. The ground in the 31 is yielding good stones of yellow pyrites, but owing to its being intermixed with an undue proportion of iron pyrites, it renders it difficult for separation. We find at this place that the indications so good at the surface have almost entirely disappeared at a very shallow depth; we purpose, therefore, if nothing of importance presents itself, in a few days to remove the men and place them at a more congenial spot, as we consider this trial does not warrant any further outlay. No perceptible change is apparent in the rock at the bottom of trial shaft; it still presents specks of copper ore throughout, and on the whole we consider it congenial for copper. Sinking is still being carried on here in quartz ore rock, but the water prevents much progress; in another month we hope to have obtained the required depth for a level to be driven in the direction of the ore-bearing ground above.—Returns for February: Ookiep, 1200 tons of 28 per cent.; Spectakel, 144 of 4½ per cent. Bills of lading received, 293 tons per Etta, and 467 tons per S. T. Arrival at Port Nolloth, the Cumberland.

COLORADO UNITED.—Mr. Macrae, March 15: Since last report the Silver Ore engine-shaft has been in process of sinking, being now down some 6 ft. The first party of men who took the contract could not procure nine men to go in, and consequently the contract fell through. Last week, however, another contract was let to a party, who have agreed to keep nine men in the shaft, making three shifts of eight hours each, three men in each shift. The company are to pay them $40 per ft. sinking, and day's pay while occupied in cutting hitches for the timber, while the contractors agree to pay for all their supplies, or mining costs, and also the sharpening of their drills. The shaft is being carried its usual size of 14 ft. by 8 ft., clear of all timbers. Up to the present time there has been but little trouble with the water, and by the first or second week in May it is expected the men will commence driving on the 14th level. The ground in the shaft is not quite so hard as it has been, and the crevice is looking well for mineral. From the character of the ground there is every reason to believe that before long mineral will be struck in the shaft. Perchard's lease in No. 1 stope is looking better, carrying 4 in. of nice looking ore. They shipped 150 sacks of ore, which returned a royalty of $120. There is but little change in No. 3 stope. The party in No. 4 stope have given up their lease, inasmuch as they would not concur with the rules and regulations of the company. The party who are sinking the shaft in the Blaine lode, about 140 ft. east of the Baltimore Company's shaft, are now down about 22 ft. They encountered an ugly slip of ground, which cut out all their mineral; but another splice of ore has come in that looks 75 per cent. better than their previous ore. Since Thursday last they have been engaged in erecting a windlass; but they will commence to sink again on Monday next. The party who are driving the drift and stoping on the east drift of the Blaine lode in the West Terrible tunnel have about 3 in. of ore in the stope, although there is none in the drift. The latter, however, is carrying a very pretty crevice rock and about 2 in. of quartz, and the indications for making mineral are good. Some very fine mill dirt is now being hoisted from the stulls at the back of the twelfth level, which, when the mill starts, will undoubtedly produce quite a nice amount of ore.

— William Robins (foreman of mine), March 31: The Terrible Mine is now 140 fms. in depth from surface, and 75 fms. below the Union tunnel, and has been sunk on the vein the whole distance. In the bottom, or 13th level, it discloses a well-defined lode, and of a very regular size. The average breadth of the lode is about 4 ft., carrying good concentrating ore throughout, with a solid pay-streak on the north, or hangingwall, of from 2 to 7 in. in width, but in some places over 1ft. The whole lode prodncing 3½ tons of milling ore and 2 tons of cobbing or smelting ore per fathom of ground driven or stoped. The Silver Ore shaft is now 40 ft. below the 13th level, and a new contract has been let to sink 50 ft. deeper, so as to be able to drive the 14th level. This shaft has about 2 ft. of crevice matter, carrying a good body of concentrating ore. It is thought by miners and experts that the large body of mineral will soon be encountered in the shaft, as we have recently had an influx of water which has now diminished. This idea is based upon the fact that several contiguous lodes—the Brown, Coin, and Chelsea Beach dip towards the Terrible vein, and that the point of their junction is not far distant, as taken from the surveys and the angles of the lodes, and as they are all pitching from the north towards the Terrible which pitches north into the mountain. The 13th level is now 630 ft. east of the Silver Ore shaft, and driven immediately over a large body of mineral; a winze having been sunk from the bottom of this level, 40 ft. deep, and carrying very rich ore. The lode in this winze, 250 ft. from shaft, is 4 to 5 ft. in width, and I brought a block of the ore from the bottom to England, and deposited the same at the offices of the company. The ore has extended over 200 ft. further east in this level than in those above. The Brown, Chelsea Beach, Coin, and Lincoln Lodes have not been very extensively worked since the consolidation of this property; they are all very streng lodes, and previous to the consolidation had produced large quantities of high grade mineral. There is a cross-course over 6 ft. in width, and composed of soft chalky rock, which in the 12th level is situated 300 ft. from the shaft, but which pitches so fast that in the 13th level it has got out to the shaft. This cross-course goes in due north and pitches to the west. A cross-cut driven upon the same would probably intersect the Brown and other lodes. This would give over 1200 ft. of backs. There is over 1000 ft. of ground lying west, embracing the points of junction of the Terrible, Oneida, and James Blaine lodes, producing fair quantities of mineral of rich quality, the last of which was run in the mill at 225 ozs. silver per ton. This portion of the sett is being leased at one-fourth royalty. When a slightly improved depth is attained they will doubtless form large bodies of mineral. The Denver Pacific Railway is now completed to within a mile of the company's mill, and by the end of the month the rails will be laid within 50 yards of the same, the road having been graded for 12 miles beyond the mine This will give a considerable saving, as previously all ore had to be carted to Georgetown, and supplies brought up in the same manner at $2¼ per ton, on mules and horse teams."—[A foot-note states that the block of ore above referred to, weighing 23 lbs., has been assayed by Mr. Claudet, of Coleman-street, who gives the result as—silver, 2032 ozs. to the ton, and lead 62 per cent.]

DEVALA-MOYAR GOLD.—Mine Manager, March 17: Salomon's Reef: I have crushed 40 tons of quartz from the 60 ft. level, and obtained 3 ozs. 3 dwts. 2 grs. of fine gold. The main shaft is down 100 ft., and the reef has widened to 6½ ft. There is a small prospect of gold in the quartz, but not so good as it was at 75 ft. It may change, however, for the better any day. The lower tunnel has been driven 2 ft. only, as the contractors drove crooked, and I made them go back and straighten the adit. Total length, 212 ft. The 60 ft. drive is now in 17 ft., and we have obtained very good prospects during the week. The 140 ft. level is in 16½ ft., and the stone we are crushing this week was taken from this level. I hope to send you the result by next mail.—Strathearn Reef: The drive north has been extended 15 ft. on the course of the reef, but I have no favourable result to report, and no better prospects. Harewood tunnel has been driven 3½ ft.

EBERHARDT.—Frank Drake, March 15: Raise No. 2: I have resumed this work with one shift of two men—not in continuing the rise, but by drifting southerly from near the top. We have cut in that direction 3 ft., and next to the wall have about 14 in. of quartz.—Drift No. 1 from 6000 ft. west: Advanced 3 ft.; total 803 ft. No change worthy of note.—Drift No. 2 from 6000 ft west: Advanced 11 ft.; total 504 ft. The rock is still very firm and hard, but shows something of a variety in character, which is more encouraging than lime or dead ledge matter. The upper half of the face is mainly lime and spar; whilst the lower half an l a streak of the upper half is a lively looking quartz, with a little black spar. The quartz not only shows stains of mineral; but during the week we have found good looking pieces of ore. The appearance is favourable enough for opening any day into genuine ore. Why these spots of ore, at the depth we are, met with from the time as reported, have not as yet led to a more concentrated body is to me one of the unexplainable things of minerological formations.

LAKE SUPERIOR NATIVE COPPER.—Captain Williams' report from the mines for the week ending March 15: No. 2 level south of No. 2 shaft on the lode advanced 1 fm. 1 ft.; lode much the same as when last reported on. No. 3 level north of No. 2 shaft on the lode advanced 1 fm. 1 ft. 6 in.; lode producing a little more copper on the footwall. No. 3 level south of No. 1 shaft on the lode advanced 2 fms.; no change since last report. The level on amygdaloid belt at Harbour advanced 3 ft.; lode pinched up and disturbed by a side branch coming in poor. The stopes in Nos. 1 and 2 levels still continue good, producing their usual quantity of mill work. In the bottom of No. 2 shaft when we stopped sinking we had conglomerate on the hanging-wall of the lode carrying a little native copper. We are finding this conglomerate running parallel with the lode along our No. 3 levels; this is quite a change, as in the levels above we had it under the lode. I am very anxious to resume sinking the No. 2 shaft below the No. 3 level, so as to prove what the result of this change may be, as I am under the impression it may be favourable for the production of copper. I hope to resume sinking of No. 2 shaft by the end of this month.—A cable has since been received from Captain Williams' advising that since this report there has been a great improvement in the Nos. 2 and 3 levels south, both of which are producing strong copper, and that in the latter he is cutting through the lode which looks well. Also that he has resumed sinking the No. 2 shaft.

MYSORE GOLD.—Capt. Plummer, March 18: Engine-Shaft: You will be pleased to notice we have started to sink Taylor's shaft below the 173. I hope I shall be able to report good progress in this place each week. The rock is easy for cutting, and we shall be obliged to put in timber to secure the sides. In another week we shall be able to fix the angle-bob, and then we shall put in an 8-in. pump to drain the water while we are sinking.—Winzes: We have started two winzes in the bottom of the 138—one north and one south of the shaft, in the east lode. These winzes, in addition to giving good ventilation in the 173, will do a good deal to explain the position of the lode in connection with the 173 workings. We are making good progress in the erection of the Elephant stamps, and all the work in the mine goes on to my entire satisfaction.

PESTARENA UNITED.—W. Roberts, W. Roberts, jun.: Pestarena District: The No. 5 lode in the 33 end north has fallen off in yield, and the ground become more stratified, occasionally yielding stones of ore from against the hanging-wall. The 65 end driving south is in stiff sterile schist, and is now suspended, the men being set to drive a cross-cut west to ascertain if any part of the lode stands to the west. The 90 end driving north is advancing in stratified schist between two good walls, and shows occasionally a little pyrites on the footwall, but not to value. The 110 end driving south is in massive siliceous rock, with a vein of pyrites against the hanging-wall, and yields 1 ton of ore per fathom of 20 dwts. per ton. The 130 end driving south has a great width of lode, chiefly of calcareous schist, with small veins of quartz and pyrites against each wall, and yields 3 tons per fathom of 8 dwts. per ton. The 130 end driving north has greatly fallen off in yield, and is temporarily suspended, being at present unproductive. The men are put to sink a winze under the 120 to communicate with the rise from the 130 to ventilate the bottom of the mine. In the incline shaft sinking under the 140 the lode has become more mixed with the country rock, and more contracted, yielding 6 tons per fathom at 6 dwts. per ton. The intermediate drive above the 80 north, on No. 5 lode, shows two separate branches diverging from each other, and yields 5 tons per fathom of 7 dwts. per ton. The intermediate drive above the 90 north has fallen off in yield, and is doubtless getting near the end of the shoot of ore; it yields 5 tons per fathom of 10 dwts. per ton. The intermediate drive above the 110 north, on the No. 1 lode, yielding 3 tons per fathom of 12 dwts. per ton, carries two small branches of quartz thinly charged with pyrites. The intermediate drive above the 65 on No. 5 lode produces 10 tons per fathom of 15 dwts. per ton. This is a new drive to open out a greater length of ore. A trial winze has been sunk to prove the ground under the 55 north on No. 1 lode, and also one to communicate to the rise from the 130 for ventilating the bottom of the mine, which has become very hot; the latter yielding 5 tons of ore per fathom of 15 dwts. per ton. The 110 cross-cut driving west from No. 1 lode has traversed two small veins of quartz and pyrites during the past month, which will be opened out on when convenient to do so. The 65 cross-cut driving west from No. 5 lode is a new cross-cut to prove the ground west of No. 5 lode. The water in the Anza has increased, but not sufficient to work all the mills, 23 running at present; this number will be increased when there is more water.

— W. Roberts, Henry J. Gifford: Val Toppa District: The No. 1 level end, south on new lode and slide, shows two or three branches of quartz in very decomposed rock above the slide, but below the rock is hard, and sterile; it yields 5 tons per fathom of 6 dwts. per ton. In the intermediate level under Zero end south there is no ore, but driving has been resumed to meet the shoot from No. 1 level as it rises. The new lode in the winze in bottom No. 1 level went down with very good ore for 4 metres, but it there became small and cut off against a door. A flatter branch of poor quartz was found on sinking below, but it not having been got through its value cannot be estimated. The end south on branch east from new lode, No. 1 level, yields 10 tons per fathom of 9 dwts. per ton, and has a strong, solid lode, but the floor in the back continues, and seemingly cuts off the lode. It may only cause a displacement, which must be proved by rising on it. The winze in the bottom of branch, east from new lode, is in mixed rock with veins of quartz, but very little ore, and this month communication will be made to the cross cut beneath; it yields 4 tons per fathom of 7 dwts. per ton. The cross-cut east under No. 1 level has cut a small branch of quartz, which seems to be the only continuation of the lode in the winze above. The men are now put to rise to hole to the latter.

PITANGUI GOLD.—The directors of the Pitangui Gold Mining Company (Limited) are in receipt of a cable message from the agents of the company in Rio de Janeiro, dated the 9th inst., advising the amount of produce obtained for the month of March as being 1350 oits. of gold. The value of this produce would amount, at 8s. 6d. per oit., to 573l. 15s. sterling.

RICHMOND CONSOLIDATED.—Telegram, April 8: Week's run (one furnace), $12,000 from 267 tons of ore; refinery, $15,000.

RUBY AND DUNDERBERG CONSOLIDATED.—March 16: Dunderberg: There are 30 tributers at work; nothing new to report; 59 tons ore shipped.—Home Ticket: The incline has been sunk 20 ft. during the week; total 30 ft. below the bottom. The ore in stope near the end of the south drift from the bottom level is not looking so well; there is a large mass of iron and low grade ore. A small portion of it only is of sufficient value to ship. The stope at the end of the south drift, third level, is producing some good ore, but is rather small at present. Have shipped 30 tons ore this week; 16 tributers at work.—Lord Byron: The ore body near the end of the tunnel now being worked on tribute is improving, the ore is of good quality, average width from 2 to 4 ft. There are about 10 tons of ore extracted. A new survey has been made, and we find the tunnel will have to be run about 35 ft. more before connecting with the cave.—Valentine Shaft: Grigg and Co. are working on a small seam of ore about 6 in. wide, assaying about $50 per ton.

— Telegram, April 8: The ore discovered in the Lord Byron tunnel has developed to 4 ft. in width. The roads have been blocked with snow the whole of the week.

SOUTH AUSTRALIAN MINES.—Captain Bryant, Feb. 23: Blinman Mine: The 70 fm. level north has been extended about 4½ fms. north of diagonal winze. A portion of the cavity, forming a fissure about 1 ft. in length, inclining towards footwall of lode, still continues filled with sedimentary matrix, composed of soft iron ochre, and a slimy sediment from the lode matrix, in which is embedded coated sulphurets, grey ore, oxide of copper (cuprite), disseminated throughout with fine particles of malleable copper. The surrounding lodestuff around cavity is fair dressing work yellow ore. There are indications of ore-producing stuff contained in a cinderlike substance, composed of iron, and a metamorphose magnesian limestone, of which there is a large mass standing on western side of level near bottom of diagonal winze, containing steel-grey ore and minute particles of malleable copper; it presents much the appearance of scoria from a volcanic eruption, or slag from a smelting furnace. The total length of cavity, from where first properly touched to forebreast of present end is nearly 9 fms. In various places there are chimneys and holes in back and bottom of level, extending in bottom of level to a depth we have not been able to ascertain as yet, owing to the accumulation of stuff in forming level. We have suspended the driving of level for the present, and put the men to test its character below. From the situation of the cavity in relation to the workings above it appears to be the medium through which the ores were deposited in upper level. The 70 south is worth 1½ ton 25 per cent ore. for portion carried; requiring the men for stoping we have temporarily suspended this end. The winze in bottom of this level has been sunk durfng the month 3 fms. The first 6 ft. passed through lode worth 5 tons 25 per cent. ore per fathom, the remainder about 1 ton of 25 per cent. ore per fathom, which in its present value. We have not to-day succeeded in letting this winze, but shall probably do so next week. The stope in bottom of this level south of winze is worth 4 tons 25 per cent. per cubic fathom, contract not out. In 60 north we purpose next week letting out a stope south of diagonal winze to six men in a lode worth 3 tons of high percentage sulphuret ore per cubic fathom. The block of ground from winze to the shaft we consider valuable. In 50 south the stope south of winze has been beaten away to the midway level for about 3½ fms. in length. We shall now commence stoping below in a lode worth 3½ tons 25 per cent. ore per fathom. The stope in bottom, south of shaft, contract not out, present value 2¼ tons 25 per cent. ore per cubic fathom. Machinery throughout the mine in good working order.

LIFE ASSURANCE.—In the eleventh edition just issued of Where shall I get the most for my money? By JOSEPH ALLEN, F.S.S. (London: Smart, London House Yard) the advantage of insuring in home offices as compared with American offices is fully discussed. The American societies (he says) are in every sense foreign offices; and the transaction being one which is to last through the whole course of life (the policy-holder's pecuniary interest increasing year by year), it is most desirable to enter into the contract with a society whose relations with the insured would not be liable to suffer by any disturbance which may hereafter take place between this country and any foreign Power. Although trustees have been appointed in England for the purpose of holding a portion of the funds for these societies, the bulk of the premiums received here is forwarded to America for investment. This is done for the purpose of realising the higher rate of interest obtainable in that country on certain classes of security. As to the extra profit realised on money invested in some American securities, it is scarcely necessary to say that the British offices are perfectly at liberty to invest their funds in those securities, and participate in the higher rates of interest, if they think it prudent and advisable so to do. The tontine policies advertised by the American offices are characteristic of the inventive genius of our friends across the Atlantic. They are not life insurances in the highest sense, but partake more of the nature of speculative lotteries. He who has money wherewith to pay up to the end of the tontine period wins the whole hazard, whilst he who adversity overtakes, though it should happen at the eleventh hour, loses all his savings (not one cent of surrender value being allowed on a lapsed policy), which go to swell the profits on any policies remaining intact at the termination of the tontine period.

MAP OF THE UNITED STATES AND CANADA.—An admirably executed coloured map of the United States and Canada, on a scale of 55 miles to 1 in. has just been issued by Messrs. RAND, MCNALLY, and Co., of Chicago (London: Trübner and Co., Ludgate-hill), and will be of great utility to travellers in those regions, and, indeed, to all interested in their development. The size of the map is 64 in. by about 40 in., and it extends from St. John, New Brunswick, in the east (about 62½° west longitude), and includes Queen Charlotte's Islands (about 137° west) on the west, while in the other direction it extends from about 52° north latitude, which takes in Nitchegoun Lake, Cape Look-out on Hudson's Bay, Split Lake, the Missinnippi, and Queen Charlotte's Islands on the north (so that the map includes nearly 3° north of the northern boundary of Manitoba) to about 23° north latitude on the south, which includes the southermost point of Florida on the eastward and within a few miles of the whole of Baja California on the westward side. The printing is remarkably clear and distinct, and the colouring permits of the boundaries of the several States and Territories to be instantly found. The map is altogether a highly creditable piece of workmanship.

THE KRISTIOR (HUNGARY) GOLD AND SILVER MINING AND SMELTING SYNDICATE (LIMITED).

Exceptionally favourable terms have been secured for the shareholders in this company by the arrangements made with the vendor, which give the shareholders the right of working the mine (upon which is erected 12-head of stamps and a 6-horse power engine) proposed to be purchased by the company, for one year from the 6th February, 1884, and of taking coal free of charge from an adjoining colliery, this arrangement enabling the shareholders to test and prove the Gold and Silver Mine and the Colliery prior to completing the purchase.

Dr. ROWLAND ATCHERLEY, Ph.D. and F.C.S, Lond. et Borol, in his report (enclosed), states:—"I have no hesitation in recommending the Kristior group of mines as being a safe investment for capital, inasmuch as, if worked with the least particle of mining knowledge, backed by common sense, they cannot fail to be highly remunerative."

THE KRISTIOR (HUNGARY) GOLD AND SILVER MINING AND SMELTING SYNDICATE (LIMITED).

Incorporated under the Joint-Stock Acts, 1862 to 1883, whereby the liability of shareholders is limited to the amount of their shares.

CAPITAL £50,000, IN 50,000 SHARES OF £1 EACH.
ISSUE TO THE PUBLIC OF 26,500 SHARES OF £1.

23,500 shares being reserved for issue to the vendor under the terms and conditions of the contract.

Payable 2s. 6d. on application, 7s. 6d. on allotment, the balance upon shareholders receiving a report from the directors as to the satisfactory working of the property, and to be voted at a meeting of shareholders to be called for that purpose.

DIRECTORS.

Sir WILLIAM SMITH, Bart., 8, Westbourne Terrace North, W. (Chairman of the West Callao Mining Company, Limited).—CHAIRMAN.

DANIEL FITZGERALD GABBETT, Esq., M.P. Cahirconlish, County Limerick.

C. G. COLLETON RENNIE, Esq., 2, Morpeth Terrace, Victoria Street, S.W., and Carlton Club.

ROBERT ANGUS, Esq., 69, Holland Road, Kensington, W. (late Managing Director of the Commercial Bank of India, Bombay.

WILLIAM H. LUCAS, Esq., Corporate Member of the Institution of Civil Engineers, Westminster (late Engineer and Manager to the Tolima Gold and Silver Mining Company, Limited, South America), Engineer and Managing Director at the Mine.

BANKERS.

Messrs. BROWN, JANSON, & CO., 32, Abchurch Lane, London, E.C.

SOLICITORS.

Messrs. EDWARD SMITH and CO., Abchurch Chambers, Abchurch Lane, E.C.

SECRETARY (pro tem.)—Mr. FREDERICK BRACHER.

OFFICES.

CROWN BUILDINGS, CROWN COURT, OLD BROAD STREET, LONDON, E.C. (FIRST FLOOR.)

ABRIDGED PROSPECTUS.

The property, the rights to which have been secured for the company, and which (according to Messrs. Johnson and Matthey's assay) contains gold, silver, and lead, is known by the name of Acziori St. Haronisag, and is situated on the Luperia Hill, in the district of Kristior, county Hunyad; it is in the heart of the gold region, and consists of a perpetual lease of about 14,458 square metres in extent, and six miners' concessions adjoining, giving a free right of search extending over an area of 448 square klafters, or about 2688 English feet each.

The Hungarian mines have produced gold since 1493. Agricola speaks of them in the 16th century as having been worked for over 1000 years, which would date them back to the sixth century, and Chalmers (1880) remarks that for a century and a-half Transylvania became to the Romans what Mexico afterwards was to Spain.

Smelting Works.—The Syndicate proposes to erect a smelting furnace at Kristior, or some other suitable site, from the working of which large returns may be expected—as the nearest furnace—the Government Smelting Works at Zalathna—is distant some 15 English miles. Large quantities of schlich lie at the surface of the various mines, the cost of carriage—60 krentzers per 100 lbs.—preventing the otherwise ready sale. "The Zalathna furnaces worked up 787,425 fls. worth of schlich during the year 1882." Dr. Atcherley reports that smelting works "are always sure to be kept in pretty full work."

Contracts.—The following contracts have been entered into with reference to the purchase of the gold mine and the colliery above referred to:—1. Dated 6th day of February, 1884, between P. Hoitsy and George Shenton.—2. Telegram dated 27th March, 1884, from S. Tucker to George Shenton.—Letter dated 28th March, 1884, from S. Tucker to George Shenton.—4. Dated 28th day of March, 1884, between George Shenton and Frederick Bracher on behalf of the syndicate.

The contracts, memorandum, and Articles of Association, reports, assay, and certificate of Her Majesty's Vice-Consul at Buda-Pest, can be inspected by intending shareholders at the office of the solicitor to the syndicate, between the hours of eleven and three, during the advertisement of this prospectus.

Prospectuses, with report and forms of application, can be obtained at the company's office and at the banker's.

THE KRISTIOR (HUNGARY) GOLD AND SILVER MINING AND SMELTING SYNDICATE (LIMITED).

Opinion of Mr. W. H. LUCAS (late Engineer and Manager to the Tolima Gold and Silver Mining Company, Limited), upon the samples taken from the Acziori Gold and Silver Mine, Kristior.

"Having inspected several samples of gold, silver, and lead-bearing material brought from Kristior by Mr. Shenton, I was favourably impressed with the results as shown by the assay made by Messrs. Johnson, Matthey, and Co., and more especially with the sample No. 4, as from my experience in silver-lead ores, the tint, colour, and granulation reminded me in appearance of that of the best paying lodes in the South American mines with which I have been associated, more especially the mines of Tolima and other similarly rich and successful enterprises."

WILLIAM H. LUCAS (Corporate Member of the Institution of Civil Engineers, Westminster).

IRON.—Messrs. WM. FALLOWS and Co. (April 8) write:—The first quarter of the year has passed without any improvement in the iron trade. There is abundant evidence that the volume of business is diminishing. The Board of Trade Returns for the first three months are as follows, and show a serious falling off when compared with the two years preceding:—

	1884.	1883.	1882.
Total .....Tons	771,361	873,835	993,507
To United States	111,440	160,177	331,226
Other countries	659,921	717,658	662,281

The number of furnaces in blast has greatly diminished, as the following returns will show:—

	Jan. 1.	Feb. 1.	March 1.	April 1.
1883	557	546	556	553
1884	506	493	488	483

The returns of the manufactured iron trade in Middlesborough are very unsatisfactory. The figures for January and February, 1884, are 90,616 tons—an average of about 45,000 tons per month; whilst the returns for the latter half of 1883 showed an average of about 56,000 tons per month. This decrease is in shipplates and angles.

IRON AND MANGANIFEROUS ORE.—Messrs. H. BORNER and Co (Cardiff, April 9) write:—The iron ore market remains in the same stagnant condition as that which has characterised our last two or three reports. Prices for the various ores remain unaltered; Carthagena and Forman manganiferous ores are quoted 15s. 9d., 16s., ex ship Welsh ports, and 16s. 6d., 17s., North Country ports, with usual guarantee of iron, manganese, and silica. Bilbao (Rubio) ore sells at 10s. 9d., 11s., ex ship Cardiff or Newport, 11s., 3d. Swansea, 11s., 11s. 3d. Tyneport. Campanil and Somorrostro 6d. more. Vena very seldom comes to hand alone being usually mixed with Rubio. Freights still remain low, with no prospect of advancing.

PROVINCIAL STOCK AND SHARE MARKETS.

CORNISH MINE SHARE MARKET.—Mr. S. J. DAVEY, mine sharedealer, Redruth (April 9), writes:—Carn Brea, South Frances, Tincroft, West and Wheal Basset, Agar, West Frances, Dolcoath, and East Pool shares have been in better demand in our market this week, and their prices have advanced. Subjoined are the closing quotations:—Carn Brea, 3 to 3¼; Cook's Kitchen, 10 to 12; Dolcoath, 76 to 77; East Pool, 42 to 43; Killifreth, 5s. to 7s. 6d.; New Cook's Kitchen, 1¾ to 1⅞; New Kitty, 1¾ to 1⅞; North Busy, 2s to 4s.; Polberro, 1¼ to 1½; South Condurrow, 8½ to 9; South Crofty, 3 to 3⅛; South Frances, 10⅛ to 10¼; Tincroft, 4⅜ to 4½; Trevaunance, 2 to 2⅛; West Basset, 3¾ to 4⅛; West Frances, 11 to 12; West Kitty, 12¼ to 12⅛; West Polbreen, ¾ to 1; West Poldice, ⅛ to ¾; West Seton, 3 to 4; Wheal Agar, 13⅜ to 14⅛; Wheal Basset, 3⅛ to 4; Wheal Grenville, 5 to 5⅛; Wheal Peevor, ⅛ to 1; Wheal Kitty, ¾ to ⅝; Wheal Uny, ⅛ to ⅛; Wheal Coates, ⅛ to ¼.

— Messrs. ABBOTT and WICKETT, stock and share brokers, Redruth (April 9), write:—The market has been firm during the week, but business has been limited, holders not being disposed to sell at current rates. Dolcoaths, East Pools Wheal Agars, West Bassets, Wheal Bassets, Tincrofts, Carn Breas, and South Frances are all better. Closing quotations herewith:—Camborne Vean, ⅛ to ⅛; Carn Brea, 3⅛ to 3⅜; Cook's Kitchen, 10 to 11; Dolcoath, 76 to 76½; East Pool, 42¼ to 42¾; Killifreth, ¼ to ⅜; New Cook's Kitchen, 1⅝ to 2; New Kitty, 1⅝ to 2; North Busy, 3s. to 5s.; South Crofty, 3¼ to 3⅜; South Kitty, ⅛ to ¼; South Wheal Frances, 10¼ to 10⅜; Tincroft, 4¼ to 4¾; West Basset, 3⅛ to 4; West Kitty, 12 to 12⅛; West Poldice, ¼ to ⅛; West Frances, 11⅛ to 11¼; Wheal Agar, 13⅛ to 14; Wheal Basset, 3¼ to 3¼; Wheal Grenville, 5 to 5⅛; Wheal Kitty (St. Agnes), ⅜ to ⅝; Wheal Uny, ⅛ to ¾; South Condurrow, 8⅛ to 9; West Seton, 3½ to 4; Polberro, 1¼ to 1⅝.

— Mr. M. W. BAWDEN, Liskeard (April 9), writes:—The mining market has been fairly active, and prices on the whole are well maintained with a demand for Phœnix United, St. Just United, South Crofty, West Basset, Wheal Basset, and other progressive stock at present low rates. Subjoined are the closing quotations:—Anderton United, ⅛ to ⅝; Bedford United, 1½ to 1¾; Carn Brea, 3 to 3½; Cook's Kitchen, 10⅛ to 11; Dolcoath, 75 to 76; Devon Consols, 3 to 3⅛; East Caradon, ⅛ to ⅛; East Pool, 41½ to 42; Glasgow Caradon, ⅛ to ¼; Gunnislake (Clitters), ⅝ to ¾; Hingston Down, 2s. 6d. to 5s.; Killifreth, ⅜ to ½; Marke Valley, ⅜ to ⅛; Old Gunnislake, ⅛ to ¼; Old Shepherds, ⅞ to 1; Phœnix United, 1¼ to 1¾; Prince of Wales, ⅛ to ¼; South Caradon (Limited), ⅜ to ¾; South Condurrow, 8¾ to 9; St. Just United, 4 to 4¼; South Crofty, 4 to 4¾; South Devon United, ⅛ to ¼; South Frances, 10 to 10¼; Tincroft, 4½ to 5; West Basset, 4 to 4¼; West Caradon, ⅛ to ⅛; West Frances, 11 to 11⅛; West Kitty, 12⅛ to 13; West Crebor, ⅛ to ⅛; West Phœnix, ⅛ to ⅛; Wheal Agar, 13⅛ to 14; Wheal Basset, 4 to 4¼; Wheal Crebor, 1½ to 1⅝; Wheal Grenville, 5¼ to 5⅛; Wheal Kitty, ⅛ to ¼; Wheal Jane, 5s. to 7s. 6d.; Wheal Uny, ⅛ to ⅛.

— Mr. JOHN CARTER, mine sharedealer, Camborne (April 9), writes:—The share market is rather quieter after the late excitement and rise in prices. Subjoined are the closing quotations:—Carn Brea, 3 to 3¼; Cook's Kitchen, 10 to 11; Dolcoath, 75⅛ to 76⅛; East Pool, 42½ to 43; Killifreth, 5s. to 7s. 6d.; New Cook's Kitchen, 1 to 1⅛; New Kitty, 1½ to 1¾; South Condurrow, 8½ to 9; South Crofty, 2¾ to 3¼; South Frances, 10¼ to 10½; Tincroft, 4¼ to 4⅛; West Basset, 3¾ to 4¼; West Frances, 1 to 1⅛; West Kitty, 12¼ to 12¾; West Seton, 3¼ to 4¼; West Poldice, ⅛ to ⅜; Wheal Agar, 13¾ to 14¼; Wheal Basset, 3¼ to 3½; Wheal Grenville, 5 to 5¼; Wheal Kitty, ⅛ to ¾; Wheal Uny, ⅛ to ⅜; Wheal Peevor, ¾ to 1.

MANCHESTER.—Messrs. JOSEPH R. and W. P. BAINES, sharebrokers, Queen's Chambers, Market-street (April 9), write:—Curtailed by the holiday of Saturday last, and in anticipation of Good Friday, as well as the occurrence of the fortnightly settlement, the week's business does not total up to a large aggregate, but the tone of the market continues good on the whole, the fine weather and cheap money counteracting to a great extent the effect of traffics, which have not returned very favourably this week. On balance the movements in home railways are not of importance, except in one or two instances, but present figures are not all best points touched traffics yesterday, and stock proving more plentiful, having caused some ease from highest figures reached. Foreign funds are irregular, and changes mostly slight on Egyptian Pref. and Turkish stamped, which are better, and Peruvians easier, showing more than fractional alteration. Mexican rails have oscillated violently again, the prevailing movement during the greater part of the week being upwards, but on the publication of the traffic return yesterday of 98 0/. decrease, and the Times report of riots, the price fell from 55⅛ to about 47 at about close this evening. In miscellaneous, considering the attention required by the settlement, and there being only four business days to report upon, show a fair number of transactions and prices taken all together may be described as pretty steady.

BANKS show no falling off from values lately ruling, full rates being obtained in dealings, and the only changes in quotations being rise of ⅛ in Manchester and County, and ⅛ in Consolidated.

INSURANCE.—Since Friday last hardly anything has been done herein. Market about steady, favourable and adverse changes about balancing one another. Higher: British Reinsurance, 1/16 to 3/16; Reliance Marine, 1/16; and Sea, 1/16. Lower: Equitable Fire, 1s. 6d. to 3s.; Liverpool and London and Globe, ⅛; Lancashire and Yorkshire Accident, 1/16 to 3/16; and National Boiler Insurance, 1/16.

COAL, IRON, &C., AND MINING.—Only a desultory business doing. Ebbw Vales and Cammell's both distinctly better. Great Laxey Lead have eased; Bolckows unchanged; Llynvi and Tondu Ordinary have receded another ⅛ from their recent advance; but the Preference remain unmoved this week.—Higher: Cammell's, 1; Ebbw Vale, ⅛ to ⅛; Tredegar Coal, &c., B, ¼; and Ashbury's New, ⅛.—Lower: Great Laxey Lead, ⅛ to ⅛; United States Rolling Stock, ⅛ to ⅛; Tees Side Iron and Engine, ¼; Tharsis Sulphur and Copper, ⅛; Llynvi Ordinary, ⅛; and Canadian Copper and Sulphur, 1s.

COTTON SPINNING shares are in fair request, and prices tend against buyers.—TELEGRAPHS: Several changes of quotations, some of which, however, are merely the result of being marked ex div.—Higher: Anglo Preference ¼, Globe Preference ⅛, and Western and Brazil ¼.—Lower: Anglo Ordinary ⅜, Direct ¼, and Globe Ordinary ⅛.—TELEPHONES quiet, and the only change being Lancashire and Cheshires, which are the turn better.

MISCELLANEOUS.—Beyond a rise in Gas Light and Coke and in Manchester Carriage, and a further decline in Union Plate Glass and Hudson's Bay, there is nothing of consequence to report.—RAILWAYS.—The continued fine weather stimulates buyers of the Southern Passenger lines, in which advance is marked. Scotch stocks have receded on weakness of "bull" account and poor traffics. Prices have generally advanced during the week, but to-day poor traffic returns from the heavy lines have caused a falling off. Backwardations current preclude "bear" operations of moment, and with cheap money a return of the advance may be looked for, even in the face of waning trade reports. Canadians have moved about sharply, and exhibit some weakness, the only sustaining power being the "backs" paid this account. Americans scarcely altered, and hardly anything doing. New York, Pennsylvania, and Ohio 1st Mortgage improved on the February statement.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, stockbroker and ironbroker (April 9), writes:—Since last report the market has been firm, and prices are generally better, owing to the easy state of the money market, the favourable spring weather, and the slight improvement in some departments of trade. The fortnightly settlement has intervened, and the account now entered on for settlement (April 29), is one of the longest ever known, but it will inc ude many holidays.

In shares of coal, iron, and steel companies prices are steady. Chapel House offered. Cardiff and Swansea, 45s. to 55s. Ebbw Vales have improved to 5⅛, 5¼. Marbellas have declined from 47s. to 42s. Wigan Coal and Iron remain about 33.

In shares of copper concerns there are good advances on Mason and Barry and Rio Tinto. Tharsis have improved from 6/. 9s. to 6/. 13s.; third dividend for last year has been announced to-day at 27½ per cent., being same as previous year. Arizonas have been sold from 12s. 6d. to 10s. 3d.; Bratsbergs, 28s. 9d. to 31s. 3d.

In shares of home mines there is an improved demand for shares of tin mines, but Old Sheoherds are lower at 15s. to 17s. Anderton are at 12s. 6d. to 17s. 6d.; British Manganese, 10s. to 15s.; Camborne Vean, 4s. to 6s.; Carn Camborne, 14s. to 16s.; Drakewalls, 3s. 6d. to 4s. 6d.; East Craven Moor, 1s. 3d.; Great Holway, 40s.; Great Laxey, 10¼ to 11; Gorsedd and Merilyn, 20s. to 30s.; Gunnislake (Clitters), 17s 6d. to 20s.; Halkyn, 6s. prem.; Killifreth, 5s. to 6s.; North Blue Hills, 1s.; New Terras, 7s. 6d. to 1/. 6d.; New Kitty, 30s. to 32s. 6d.; New Cook's Kitchen, 20s. to 25s.; Phœnix United, 25s. to 30s.; Polcrebo, 3s.; South Crofty, 5/s. to 60s.; Sortridge, 6d.; South Devon, 6s. to 8s.; Tankerville, 1s. to 2s., Tamar, 4s. to 6s.; Tregontrees, 2s. 6d.; Tincroft, 85s to 90s.; West Crebor, 1s.; West Poldice, 5s. to 6s.; Wheal Basset, 70s. to 75s; and Wheal Comford, 11s 3d.

In shares of gold and silver mines the principal business has been in California and Montanas, which are firm at 13s. to 15s., and 65s. to 70s. respectively. Balkis are at 22s. 6d.; Denver, 2s. to 3s.; Frontino, 17s. 6d. to 20s.; Gold Hills, 1s. 3d.; Gold Coast, 2s. 6d. to 3s. 6d.; Kapunga, 3s. to 4s.; Kohinoor, 5s. to 6s.; Organos, 20s. to 22s. 6d.; Plumas Eureka, 27s. 6d.; Potosi, 2s. to 3s.; Tecoma, 2s; Victoria, 12s. to 14s.; and West Calico, 4s. to 6s.

In shares of miscellaneous companies the principal alterations are in Burntisland Oils and Lawes' Chemicals, the former declined from 20½ to 18½ on dividend rumours, while Nobel's advanced from 22¼ to 24, on the expectation of a favourable annual report. Home Mines Trust, 13s. to 15s.; and Lawes' Chemicals, 4⅞ to 5⅛.

EDINBURGH.—Messrs. THOS. MILLER and SONS, stock and share brokers, Princes-street (April 9), write:—Business since last report has been very quiet. There is still an absence of activity in home railways. Canadians have declined, but Grand Trunk stocks have recovered somewhat from their lowest. Arizona Copper shares advanced a few shillings after the report of the experts was published, but they have fallen again. Rio Tinto and Tharsis have both improved. Oil shares are in some instances lower. Burntisland have fallen rather heavily. Nobel's Explosives have been in demand at enhanced prices. Since Wednesday last Rio Tinto have changed from 15⅛ to 20¼, Tharsis from 129s. to 134s., Burntisland Oil from 20 5/16 to 18⅞, Westfield Oil from 13 to 8¼, Nobel's from 22½ to 23½.

IRISH MINING AND MISCELLANEOUS COMPANIES SHARE MARKET.

CORK.—Messrs. J. H. CARROLL and SONS, stock and share brokers, South Mall (April 10), write:—Markets were steady to-day. Great Southerns and Westerns changed hands at 115½, and Great Northerns at 114½. Midlands and Wicklows unaltered. Bandons were done at 82½. Bantry Extension shares, buyers at 10. Bank stock brought 328½, Nationals 24½, and Provincials 31⅞. Munsters were done at at 6 5-16ths. No change in Hibernians. Alliance Gas remain 18⅞, and Cork Gas 7⅞. Gouldings are offered at 8⅛, and Levys at 6. Steamships wanted at 16½, and Packets on offer at 11½. Lyons and Co. shares fully paid on sale at 6½, and Gresham Hotels shares asked for at 3½. Dalys unchanged. Lyons and Co. Debentures 102. Harbour Board Debentures wanted at 102 to 102½. Brewery shares were asked for at 4, and Brewery Debentures 96⅔ to 97.

Mining Correspondence.

BRITISH MINES.

BEDFORD UNITED.—H. Treasize, April 8: North Lode: We have not yet cut the lode in the 115 cross-cut west, but we expect to meet with it soon. The tribute pitches on this lode are looking very well.—McCallum's Engine-Shaft, Bridge Lode: The shaftmen are at present busily engaged in fixing the skip-road, which will be completed to the 75 by the end of the present week. We shall then resume driving the 75 east as fast as possible, and I expect to cut the lode in about 2 or 3 fms. driving, which will take a fortnight to accomplish. I may say I have a very good opinion that the lode will be found productive when opened on. Judging from the appearance of the lode in the 62 east and west, for 70 fms. in length, there is every indication of a good payable lode being found in the 75. In the 62 east the lode is 3 ft. wide, and of a promising character; two stopes behind the end are worth 7/. per fathom each, or 2 tons of ore. The lode in the 62 west presents a very kindly appearance, and is producing raving work for ore and mundic. Two stopes behind the end are worth respectively 8/. per fm., or 2 tons of ore. The lode in the 42 east is no taken down, but is strong and masterley in appearance. No. 1 stope at this level is worth 10/. per fathom, or 3 tons of ore; No. 2 is worth 8/., or 2 tons of ore per fathom; No. 3 is worth 18/., or 5 tons of ore per fathom. The several tribute pitches on this lode are looking very fair. I may say, in conclusion, that the prospects of the mine are looking very encouraging.

BLUE HILLS.—S. Bennetts, R. Harris, April 9: The Pink lode in the 70 east end is worth from 5/. to 6/. per fathom, and in the 70 west end it is worth from 6/. to 7/. per fathom. The Baldhu lode in the 30 east end is producing a small quantity of tinstuff, and the ground apparently changing for the better. In the 20 east end it is rich in mundic and copper mixed, with a little tinstuff; altogether a promising lode.

CASHWELL LEAD.—J. Peart, April 5: The vein in heading in copper hazel west end near the drift forehead is hard, but good ore in places, is 2 ft. wide, the low part is all worked out, and does not look any better where the next heading will start, the top part is still worth about 1 ton of ore per fm. The vein in heading going east in the above stratum is 5 ft. wide; a great part of it is poor, but will yield a lot of bouse, and average 1 ton of lead ore per fathom. The drift going west in copper hazel is not looking quite so well; the vein is much harder, but plenty of spar; by driving a few fathoms it may soon open out again, as we have gone through several of these hard places, they only lasted a fathom or two and broke—i.e., turned soft again, and were as rich as ever; at present it is worth 2 tons of ore per fathom. The drift going east in copper hazel is still very hard, and not much vein, a little ore, but nothing to value.

CARN CAMBORNE.—W. C. Vivian, April 9: There is not much alteration in the mine since my last report, but the change observable is in the right direction, being towards improvement. In the 105, east of engine-shaft cross-cut, the lode is now 2 ft. wide, containing good patches of copper ore (black and yellow ore), and having a better appearance generally than it has had in the last week or two. In the 105, west of engine-shaft cross cut, the lode is gradually increasing in size and improving in character, but is not at present yielding any ore.

COLLACOMBE CONSOLS.—Wm. Skewis, April 9: The engine-shaft is sunk rather over 8 fms. below the 96. The ground is still favourable for sinking, and fair progress is being made. Nos. 1 and 2 winze, in the bottom of the 96, are cleaned up a little over 8 fms., and we expect to reach the bottom of them by the end of another week, and then to work on the lode and return the copper ore left by the previous workers. The prospects of the mine are much better than I have before seen them.

DEER PARK.—T. Cocking, April 9: The lode in the rise and stopes of deed adit is about 4 ft. wide, nearly 2 ft. of which is good saving work for copper ore of good quality, and presents every indication of a further improvement. At this point we have 25 fms. of backs. The adit is extended west of this point about 40 fms., and communicated with the shaft by a short cross-cut of 6 fms. The present end is 6 fms. west of shaft, and the lode composed of capel, mundic, and copper ore. About 20 fms. west of the shaft a large cross-course intersects the lode, at which point there will be 50 fms. of backs and a large quantity of mineral, that can be taken away and returned at a substantial profit.

D'ERESBY MOUNTAIN.—W. Sandoe, April 9: On Friday last we bored a hole 6 ft. deep in the bottom of the new surface shaft, which on blasting it got through to the rise in roof of No. 4; this let down all the water, which is much in our favour, and we are now very busily engaged squaring down the shaft, and hope to complete it to the No. 4 in the course of next week. The lode here yields a mixture of lead and blende, saving work for the washing-floors. In the shaft sinking below No. 4 we have sunk about 5 yards in the past month, which must be considered good sinking under the circumstances; the lode here yields a slight mixture of lead and blende. In the rise in roof of No. 6 we have risen in the past month about 3 yards, so that we have now only from 2 to 3 yards between this point and No. 4 shaft, and this I hope to get through in about nine days or a fortnight. The lode in the rise is now worth ½ ton of lead ore per fathom. We are pushing forward all our work as fast as possible.

DEVON GREAT CONSOLS.—Isaac Richards, April 9: Wheal Emma: New Shaft, New South Lode: In the 205 east the lode, 4 ft. wide carrying, is composed of strong capel, quartz, peach, fluor, a little copper ore and 3 tons of mundic per fathom.—Railway Shaft: In the Railway Shaft, sinking below the 205, the ground continues favourable for progress, and is congenial for the production of mineral. In the 205 west, on the south part of the lode, 3 ft. of the lode is being carried, yielding some good quality copper and mundic ores. In the 160 west on the south part of the lode, the lode is 2 ft. wide, of a promising character, and yields good stones of copper and mundic ores.—Watson's: In the 112, west of the engine-shaft the lode (4 ft. wide) is composed of very fine capel and quartz, with peach, fluor, copper, and mundic ores; worth 3 tons per fathom. In the 100 west of the engine-shaft, the lode is 2 ft. wide, composed of capel and quartz, with small quantities of copper and mundic ores. All other points of operation throughout the mines are without important alterations.

DEVON GREAT UNITED.—Isaac Richards, April 9: In the 130 fm. level, east of Willesford's shaft, the lode has further improved, and is now yielding 2 tons of copper ore per fathom, and its general character is most promising. In Pengelly's rise in the back of the 12, west of Willesford's, the lode continues to yield 6 tons of copper ore per fathom for the length of the rise—9 ft. In the winze sinking below the 104, west of Willesford's shaft, the lode is 3½ ft. wide, and continues equally good, yielding 6 tons of copper ore per fathom for length of winze—9 ft. In the 60, west of Watson's shaft, on the middle lode, the driving is being carried by the side of the lode for more speedy progress.

DRAKEWALLS UNITED.—M. Bawden, April 9: We have communicated the rise in back of 40, west of engine-shaft, to the winze in bottom of shallow adit, and have let the ground thereby laid open on tribute to 10 men, at 10s. in 1/., with a standard of 45/. per ton for black tin; we shall not, however, get any benefit from this pitch in our next sale of tin. We shall now drive the 90, west of engine-shaft, by aid of rock-drills, and have no doubt but that we shall open ground that will set at 10s. in 1/., if not at a less price. We are making every effort to get a larger quantity of tin for sale this time, but fear the Easter holidays will somewhat interfere with us.

EAST BOTALLACK.—Thomas Trahair, April 9: The 20 is driven east from engine shaft 6 fms. 3 ft.; the ground in this end is looking much the same as the ground in the level above. I am watching this point very closely. I hope to give a more favourable report of this end in my next. The 10, driving west from engine-shaft, has very much improved both in size and quality. The 10, driving east from engine shaft, is opening good tribute ground. The stopes in back of this level set last week are looking fairly well. We have met with a cross course in driving the adit end east from engine-shaft, which has improved the lode.

EAST BLUE HILLS.—S. Bennetts, W. K. Mitchell, April 9: There is not much alteration to notice in the stoping department. The engine is got in readiness for working. The house erected for covering it over footway, rods, pulleys, &c., are being put in, and the pumps are being sent down, so that in the course of a few days we hope to be in full work in the bottom of the shaft.

EAST CARADON.—W George, J. Kellow, April 9: During the past month the 130 cross-cut has been extended further south 2 fms. 5 ft., but not having intersected any more lode we have put the men to drive west on a branch or lode from the main cross-cut; set to six men, at 18/. per fathom. This will be opened on and reported at the meeting. Two men are employed in driving west on a branch further south; set at 1/. 10s. per fathom, producing a little ore, and should improve on getting away from the cross-course. To drive east from the rise in the back of the 70, on south lode, at 5/.; lode 1 ft. wide, producing good stones of ore, and looking promising for improvement. We have four tribute pitches at 13s. 4d. in 1/.

EAST WHEAL LOVELL.—R. Quentrall and Son, April 2: South Lode: There is very little alteration in the 7 east. We have driven over a productive lode in this level for several fathoms, and it is in a very favourable channel of ground. Within the last few days we have discovered another lode about 7 fms. north of the above, on which we are sinking, and are now down about 3 fms. We are much pleased to say that the lode in the bottom of the shaft is 1 ft. wide, and of very good quality. It is altogether a very promising lode, and contains more tin than might be expected at the depth.—Sevorgan: The lode in the winze sinking below the 27 west appears to be changing in character, and we are hoping shortly to be able to report an improvement.

EAST WHEAL LOVELL.—R. Quentrall and Son, April 9: We have opened on the lode recently discovered a length of 4 fms., and it is looking very well in each end. We have sent a pile of tinstuff to the stamps from this lode, which has assayed 84 lbs. of tin to the ton, and which is very encouraging. There is no other change to notice.

EAST WHEAL ROSE.—T. Doidge, R. Gill, April 8: Penrose's Engine-shaft: Good progress is being made here in forking, and we shall shortly be in a position to commence to fix the 21 in. plunger pole at the 70. We are putting in launders at the 40 to carry the water from the south end to engine-shaft to 22 in. pole, which will not only supply the difference between this and the 22 in. pole to be fixed at the 70, but will prevent this water from going deeper, and thus effect a great saving in coals. We hope to complete this by the end of this week.—North Wheal Rose Shaft: The main rods, pump, &c., are now being sent down here to complete the pitwork for second pole which is fixed at the 65, and we are preparing a 20 in. drawing-lift to drop into the water below this point. The whole of this work is in a very forward state, and will soon be ready for the 100 in. engine to go to work.

PRONGOCH.—J. Kitto and Son, April 7: The new shaft being sunk below the surface and the rise above the 14 are progressing very satisfactorily, insomuch we expect to effect to effect a communication between those points in a few days, when we shall at once proceed to fix the skip-road, and erect the ne-

cessary winding appliances at surface; and seeing the way is clear from the 14 to the 16 we hope to get this piece of work completed cheaply and quickly, and when accomplished it will from its close proximity to our principal ore ground enable us to open out this part of the mine more economically, and bring the ore to surface more cheaply than we have hitherto been able to do; the other winding shafts being a considerable distance away, and from their position are more particularly for working the other courses of productive ground. Looking at the different points of our underground operations we are pleased to be able to say that on the whole they maintain their value and output of lead and blende ores. We have just commenced opening out a new piece of productive grounnd in the 44, which as far as yet seen yields 3 tons of blende and 10 cwts. of lead ore per fathom, and judging from its position and present appearance there is evidently a good prospect of its producing large quantities of ore. Our dressing and other surface operations are going on vigorously, and we purpose selling during the present month 50 tons of lead and 200 tons of blende ores.

GAWTON.—G. Rowe, April 5: The ground in the 117 east has improved for progress within the past week, and the lode continues large and promising, being over 7 ft. wide, and turning out some fine stones of mundic, with good quality copper ore. The lode in No. 1 rise in back of the 105 east is improved both in size and value, which is 5 ft. wide, and yielding 7 tons of mundic per fathom. The drivage of the 95 east is continued by the side of the lode. The lode in the 70 east is 7 ft. wide, and yielding 9 tons of mundic per fathom. The lode in the 70 west is 8 ft. wide, composed of capel and arsenical mundic, and yielding 8 tons per fathom. No other change worthy of note.

GREEN HURTH.—Jas. Polglase, April 3: The 44 end north is worth about 1¼ ton per fathom No. 1 stope is worth 2 tons per fathom. No. 2 stope is in plate. No. 3 stope is worth 2½ tons per fathom. No. 4 stope north is worth 4 tons per fathom. Stope in back of Standage is worth 3½ tons per fathom. North end of the 30 level is worth 1½ ton per fm. The east level (adit) is badly crushed, consequently our progress is slow. All other operations progressing favourably. Dressing going on well.

HEALEYFIELD.—J. Trelease, April 4: There is not much change in the appearance of the strings we are driving on south of the Whitwell shaft since my last report, they are still producing some saving work, but not sufficient to value. The tribute pitches in the old mine are without change. We hope to have 15 or 16 tons of ore ready by Tuesday next. Machinery, &c., working very satisfactorily.

HINGSTON DOWN.—T. Richards, April 9: In the 52 east of the engine-shaft the lode has a better appearance, and is producing some stones of yellow copper ore intermixed with mundic, and is altogether of a more promising character. The south cross-cut towards the No. 2 lode is extended 23½ ft., and fair progress continues to be made.

KIT HILL GREAT CONSOLS.—I. Richards, April 9: At the tunnel level the ground at present is not favourable for exploration. The distance driven during the past week is 11 ft.—North Engine-shaft: In the north engine-shaft sinking below the 88 the lode is 6 ft. wide, still yielding good stones of tin ore, and its general character as the sinking progresses is most encouraging. In the 88 east the lode is 5 ft. wide, of a very promising character, and yielding a little tin ore. In the 88 west the lode is 5 ft. wide, and is also of the same general promising character.

MELLANEAR.—Capt. John Gilbert, April 9: The cross branch is continuing in the 30 cross-cut, south of Gundry's shaft; it is now 1½ ft. wide, composed of spar and stones of mundic, and very easy for driving. The 70 cross-cut, driving north from the main lode, is in a very congenial killas for copper ore. The part of the lode carrying in the 100, west of Gundry's shaft, is 6 ft. wide, and yielding 2 tons of copper ore per fm., but there is more lode standing in the south side of the level, which the men have just commenced to take down. The rise in the back of the 110, west of shaft, is yielding 2 tons of copper ore per fathom, and some good stones of tin. In the 110, east of shaft, the lode is 4 ft. wide, yielding 1½ ton of copper ore per fathom, and a good deal of sulphurous mundic. The lode in the 120, east of shaft, is 4½ ft. wide, yielding 2 tons of ore per fathom, and letting out a large stream of water. The part of the lode driving on in the 120, west of shaft, is 5 ft. wide, and yielding 1½ ton of ore per fathom; the lode altogether is 7 ft. wide. The rise in the back of this level is yielding 3 tons of ore per fathom. The lode in Gundry's shaft, sinking below the 120, is 4½ ft. wide, yielding 3 tons of ore per fathom, and presenting a very promising appearance. There is no change to notice in any other part of the mine. We shall sample on Tuesday next about 600 tons of copper ore.

MID-DEVON COPPER.—James Neill, April 5: A Shaft: The water was drained to the bottom on the morning of April 1, when sinking was resumed, by 12 men, three with rock-drill, and nine by hand labour; sunk since then 1 ft. 3 in. Total below the 80 is 9 fms. 2 ft. 8 in. There is no change in the character of the work. The water is still very quick, but we may now expect a gradual abatement, which will enable us to make better progress.—C Shaft: The A shaftmen were engaged here one day—Monday—and commenced a cross-cut from the extreme end of the 50 east, and extended it 1½ ft. The stope in back of cross-cut north from 50 east worked by two men and two boys is without change, still yielding 1½ ton of ore per cubic fathom, with every indication of an early improvement.—Surface: Machinery throughout working well, and doing good duty.

MOUNTS BAY CONSOLS.—W. Argall, T. Job, April 5: Since last report we have cleared the engine shaft 1 fm. 4 ft. 6 in., now down 18 fms. 2 ft. 6 in., and we hope our next will report the seeing of the 20 fm. level. The winze sinking below the adit level at 12s. in 1*l.*; tribute is worth 10*l.* per fathom. We have holed the winze near the engine-shaft to the old workings, and have been down about 8 fms., and find some lode standing, but as yet cannot say the length or height. We have set one pitch at 13s. 4d. in 1*l.* We have three other pitches working at 13s. 4d., and one at 15s. in 1*l.* tribute. Our prospects are very favourable, and we are preparing another parcel of tin.

MOUNT CARBIS.—W. Tregay, April 9: The 60 north cross cut is still letting out large streams of water. The lode in the winze in the bottom of the 50, and in the stope there, is worth 20*l.* per fathom. The 50 cross-cut is letting out much water, and we are evidently nearing the north lode.

NEW CARADON.—N. Richards, April 9: The drawing-lift is now dropped to the 40 fm. level, and the water to-day drained to that point. We cannot, however, get into some of the levels, owing to their being choked with debris; but every effort will be made to do so as early as practicable. We shall now fix a standing plunger-lift to the 30 fm. level, and then get the water out of the bottom of the mine with as little delay as possible.

NEW KITTY.—Wm. Vivian, April 9: We continue to push on the cross-cut in the 50, north of engine-shaft. There is no change to notice at this point. In Thomas's shaft, sinking below the 20, the lode is of a very promising character, producing mundic, copper, and tin. There is no change to notice in the 20, driving east, since last report.

NEW TERRAS.—R. Eade, April 10: We have not yet communicated the bottom cross-cut at the engine-shaft with the winze, the distance to drive being several fathoms more than we expected. We find in dialing the ground that we have about 9 ft. more to drive; as soon as we get through we shall at once push on with sinking the engine-shaft to enable us to get a sufficient supply of water for stamping and dressing purposes, and also to drive back towards the rich tin ground opened in the deep adit. We do not intend fixing the ram until we increase the stamping power. There is no alteration to notice in the great stopes or in the deep adit. The branches in the shallow adit continue much the same. Two of our buddles are now ready, and we hope to commence buddling our tin-stuff on Monday. I should have mentioned that we might have done so before, but we have planned and carried out all our floors for a much larger number of stamps, so that when we increase that power we shall not have to alter them. We are carrying out all our works to accommodate 100 heads of stamps. The weather continues dry, and our water supply has therefore considerably decreased, inasmuch that our stamps can only run 12 hours at a time; we hope to alter this in course of a few weeks.

NEW TRUMPET CONSOLS.—R. Quentrall and Son, April 3: We are making good progress in the sinking of Trenethick shaft below the 23 fm. level. The lode in the 23 driving east is producing stamping work for tin. In the 23 west the lode is worth 10*l.* per fathom. We are glad to say that we have a good lode in the stope east and west of the winze, which has been holed from the 16 to the 23. It is worth 15*l.* per fathom for copper ore, and some portions of it are very rich. The 16 west is still opening ground that can be stoped at a profit, and the lode is worth 8*l.* per fathom. We have driven through several fathoms of productive ground in this end, and as it is in advance of the 23 we think we have excellent prospects in that direction. We are getting ready a good parcel of copper ore for sale.

NEW TRUMPET CONSOLS.—R. Quentrall and Son, April 9: The different points of operation are looking quite as well as last reported, and the mine altogether is opening out very well.

NEW WEST CARADON.—N. Richards, April 9: I am pleased to say that No. 6 lode, in the 38, east of cross-cut, has improved a little in the last two days. It has lost its ironv nature, and is now yielding a little copper ore, and looking promising for further improvement. No. 5 lode, in this level, is 2 ft. wide, producing saving work; a kindly looking lode.

NORTH BLUE HILLS.—S. Bennetts, April 9: The shallow adit is cleared out some 10 fms., but is not yet cleared so far as the old workings on the lode, which, however, cannot be far ahead.

NORTH GREEN HURTH.—Jas. Polglase, April 3: The deep cross-cut has intersected several small strings. The vein in the south level is very promising, producing bits of lead. We are making better progress in driving the adit level in the new property.

NORTH TRESKERBY.—Pryor and Son, April 3: During the past week our underground operations have been confined principally to the holing of Jabez's shaft to the deep county adit cross-cut, and we are pleased to say we have this day effected the communication, but the bottom of the shaft being a little above the adit level it will take against Tuesday next to complete this important work. Jabez's shaft sunk and holed to the deep county adit, which has given us good ventilation for working on the rich lodes already intersected, and to resume with a full pare of men the driving of this adit level still further north, which cross-cut is now near No. 5 lode. No other change of importance since our last. The work at surface is being carried out as fast as circumstances will permit.

OLD GUNNISLAKE.—W. Skewis, R. C. Seccombe, April 9: Bonny Lode: In the adit level west the lode has again improved, now 1 to 1½ ft. wide, producing good saving work for copper ore, is letting out water freely, and shows every indication of still further improving at an early date.—Caunter Lode: In the adit end east on this lode we have intersected an east and west lode, composed principally of fluor-spar, chloritè, and yellow copper ore, but we have not yet opened sufficiently on it to give its value. As a considerable quantity of water is issuing from the north or footwall side of the level we are of opinion we may be in close proximity to the Ding Dong lode.—Main Lode: In the rise in back of the adit the lode maintains its size, is letting down a large quantity of water, and produces rich carbonate of copper. We anticipate an early discovery of ore here. We have commenced a cross-cut to the Bonny lode, west of and in close proximity to the great cross-course, and hope to apprise you of its intersection in our next report.

PHŒNIX AND WEST PHŒNIX UNITED.—John Truscott, April 10: The various points throughout these mines maintain their value, and the following being of interest their present values are affixed:—The 80 end, west of old sump, is worth 8*l.* per fathom for copper ore, and has a very promising appearance. The 60, west of ditto, is worth 10*l.* per fathom for tin, and the 50, west of ditto, is worth 12*l.* per fathom for tin. In the western mine the 50, west of new engine-shaft, is worth 15*l.* per fathom. The 40 is worth 30*l.* per fathom, and the 20 is worth 10*l.* per fathom. The various stopes and tribute pitches are producing the usual quantity of tinstuff, which has lately been of a better average produce. We sold yesterday our fortnightly yield of tin—22 tons, at 43*l.* 2s. 6d. per ton.

PLUSHEYS.—T. Trelease, April 9: We have intersected a branch in the shaft which has let down a quantity of water, and which has compelled us to suspend sinking operations until we get the winding gear to attach to the wheel. It is all made, and we are expecting it every day from Newcastle, and we shall lose no time in fixing it when it arrives. The men are employed getting everything ready against its arrival. The branch intersected is about 4 ft. wide, composed or carbonate of lime and quartz, intermixed with mundic and spots of silver-lead ores. I have put six of our men to open an adit on the Marke Valley lode west. It was driven a few fathoms a few years since by a private individual, but the timber has given way and it has gone together. I should think we shall reach the end this week. There are some large stones of gossan on the old burrow having a very kindly appearance, and which is an evidence of a large lode. This adit will gain backs of over 30 fms. in the western part of our sett, and will cross all the north and south lodes existing in the sett. I hope before writing another report we shall commence sinking the shaft again.

POLGREBO TIN.—W. H. Martin, April 9: We have just intersected the lode at the 30 north cross-cut; as far as seen there is rich tin, but there is not time to say more by this post. I will write you to-morrow with particulars after I come up from underground. Yesterday we sold a splendid parcel of tinstuff (32 tons 8 cwt.) for 68*l.* 8s. 6d.

PRINCE OF WALES.—S. Roberts, April 9: In the 102 fm. level east we have intersected No. 2 cross-course, which is letting out water very freely. We have not yet taken down the lode, which, as far as can be seen, looks remarkably well; some splendid stones of tin have been taken from it to-day. We purpose putting up a rise on the intersection of both lodes, and think it will open out a good section of stoping ground, as we know there is a rich lode gone down in bottom of the levels above. Lode in the 102 west not yet taken down, which will now be done as soon as we can clear the level of stuff. In the 90 fm. level west we have driven on the new silver lode by the side of the main lode about 3 fms., and are now preparing to blast it down. No change in any other part of the mine.

ROMAN GRAVELS.—A. Waters and Son, April 10: Telegram: Mine equal to late reports. Sold to-day 50 tons of blende. Sampled 250 tons lead ore.

RUSSELL UNITED.—John Bray, April 10: There is no important change to notice in the appearance of the lode in Matthew's shaft sinking below the 97, or in the cross-cut south at Stephen's shaft since last report.

SOUTH CONDURROW.—W. Rich, April 9: There is nothing new to report on this week. A full report shall be furnished for general meeting.

SOUTH DARREN.—J. Mitchell, April 9: The 130 end west continues to look very well; there is a fine branch of lead in the north side, also small strings throughout the whole width of the forebreast; it is now worth 2 tons of silver-lead ore per fm. In the same level east the lode looks kindly, and contains a nice branch of copper and a little lead, though not sufficient of the latter to value at present. As the run of ore dips eastward we shall not cut it so soon in this level as we did in the 120. The three stopes working are worth together 5 tons of silver-lead ore per fathom. We have had a better supply of water during the past week. We propose to put another four men to stope as there is ground opened that will pay for working.

SOUTH DEVON UNITED.—W. Hooper, April 9: The 120 west at Martin's shaft has been driven the past week 3 ft., the lode at present being a little more compact, consequently the progress has not been quite as good; it is now from 5 to 6 ft. wide, composed principally of spar and copper ore, with a value of 14*l.* per fathom. The killas in which the lode is embedded is of the best possible description for the production of large quantities of copper ore, and for the speedy laying open of the lode, it being precisely similar in character to that in which large deposits have been met with in the western levels, where good dividends were paid for many years. Seeing the lode in the bottom of Martin's shaft is from 5 to 6 ft. wide, worth 12*l.* per fathom, with every prospect of continuing also a good lode in the western end already alluded to, I do calculate, with such prospects, this property will in a short time be self-supporting. Not being satisfied we had the full width of the lode in the above end—the 120 west—we removed the eastern end men to cross-cut north about 2 fms. behind the end, which have been driven 5 ft. 6 in., and have met with several branches containing mundic and copper ore. We shall continue this until reaching the north or flootwall part of the lode. The lode in the adit level west is without any particular change since last reported on.

TANKERVILLE GREAT CONSOLS.—Telegram: Things going on as usual all round. Sold 52 tons lead ore. Pennerley 30 ditto. Tankerville sampled 30 ditto and 50 tons blende Bog to-day.

TREVAUNANCE UNITED.—Wm. Vivian, April 9: In the 55, driving east of cross-cut, the lode is worth 30*l.* per fm. for copper; the lode at this point continues to open up very satisfactorily indeed.

TREBARTHA LEMARNE.—W. Skewis, April 9: The tramroad for conveying the stuff from the Gulley lode to the stamps is completed and set to work, carrying tinstuff regularly from the lode to the stamps. This will effect a great saving both in cost and time. The mechanics are busily engaged erecting the additional 12 heads of stamps, round buddles, &c. By the time these are completed the lower level will be driven forth beyond the leat through which the water runs to work the stamps and the rise communicated from it with the open workings on the Gulley lode. This will put us in a position to supply the 24 heads, and so keep them in full work the whole of the time; and if the lode continues as good for tin as at present we shall fully, if not more than double the present returns of tin.

WEST CARADON.—N. Richards, April 9: The rise in the back of the midway level, on Gilpin's lode, will yield about 1 ton of copper ore per fathom. The rise in the back of the 38, on the south part of Jope's lode, will yield from ½ to 1 ton of ore per fathom. The rise and stopes in the back of the adit level, on Gilpin's lode, will yield from 3 to 3½ tons of ore per fathom. A stope in the bottom of this level will yield 1 ton of ore per fathom.

WEST CREBOR.—John Andrews, April 9: The lode in the engine-shaft, sinking below the 80, continues about 3 ft. wide, and is without change since reported on last week. In the 80 west we are carrying about 3 ft. of the south part of the lode, which yields a little ore and mundic, but not to value.

WEST GODOLPHIN.—T. Hodge, Francis Hodge, April 8: Considering the nature of the rock, we are making fair progress in sinking the engine-shaft. Two stopes in back of the 83, on Pink lode, are worth together 24*l.* per fm. The 40 east end, on Pink lode, produces some good stones of tin. In the 50 west end we have met with a small crossing which has slightly disordered the lode; it is worth 5*l.* per fm. The rise in back of said level is worth 9*l.* per fathom. No other changes.

WEST PATELEY BRIDGE.—D. Williams, April 8: I herewith enclose cost-sheet and merchants' bill for last month, due on the 10th inst., also those for the month of February, returned signed, &c. The cross-cut south driven upon the cross vein from the foot of East Grassington shaft intersected the main lode at a distance of 33 ft., and we are now driving east and west upon its course. The lode so far as proved is 3 ft. wide, carrying limespar and gossan, and intersected with rich stones of lead ore. The old man, however, as is generally the case in rich ore ground, worked rather deeper than I anticipated from what information I could glean amongst the oldest inhabitants, the bottom of his workings reaching within a few feet of our level; though worked before powder was known, consequently only the softest parts of the lode have been taken away, leaving ore ground that will pay on tribute. We are pushing forward the levels with a full force of men, and will soon commence sinking at the junction of the two lodes, and I am so pleased with the general appearance and productiveness of the lode I feel confident that all predictions here will be realised. We have drawn a nice sample of orestuff to grass, and have commenced laying out floors for cleansing same, though on a small scale to begin with, but to be increased as the output of ore demands.

WEST KITTY.—Wm. Vivian, April 9: There is no change to notice in the mine since the meeting held on the 27th ult. We have over 15 tons of tin in the tin-house ready for the smelting house.

WHEAL BENNY.—Thos. Cocking, April 9: The lode in the end and stopes east of the engine-shaft is full 8 ft. wide, producing good stamping work for tin. We have now a parcel of black tin, about 2 tons, ready for the market, which I intend taking to the smelting-works on Tuesday next. No time will be lost in getting another batch of tin ready for sale. The stamps and other machinery are all in good working order.

WHEAL COATES.—Wm. Vivian, April 5: I am glad to say the 80 west is improving for copper. Copper sold on Thursday last, 56 tons, at 3*l.* 12s., and 12 tons at 7*l.* 14s.

WHEAL CREBOR.—H. Phillips, P. D. Holman, April 8: The lode in the new shaft sinking below the 144 contains arsenical mundic, intermixed with good copper ore, and showing indications of improvement. There is no change in the 144 driving east of new shaft since last reported; we are forcing on this by the side of the lode to facilitate the communication with the winze sinking below the 132. The lode in the 144 driving west of new shaft will yield 7 tons of ore and 4 tons of mundic per fathom. The lode in the stope in back of this level will yield 10 tons of ore and 4 tons of mundic per fathom. The influx of water in the winze sinking below the 132 east of No. 2 winze has impeded our progress, which we are forcing on by the side of the lode to communicate with the 144 east, the lode standing in the north will yield 8 tons of good ore per fm. The lode in the 132 driving east of winze will yield 1 ton of ore and 2 tons of mundic per fm. The stope in the back of this level will yield 4 tons of ore and 3 tons of mundic per fathom. The lode in the stope at the 120 will yield 10 tons of ore and 2 tons of mundic per fathom. The lode in the bottom of the 48, east of shaft, will yield 4 tons of ore and 4 tons of mundic per fathom. The lode in the stope in back of this level will yield 4 tons of ore and 4 tons of mundic per fathom. There is nothing to call for any special remark in any other part of the mine.

WHEAL GRENVILLE.—T. Hodge, April 9: The 205 east end produces stamping work. In the 190 winze, coming down before said end, we have an increase of water, which caused it to be suspended; the men are placed to sink a winze in the bottom of the 130. The west level is opening out tribute ground. The 140 west end is worth 7*l.* per fathom; the 130 west end is worth 10*l.* per fathom; the 120 west end is worth 9*l.* per fathom. No other change.

WHEAL LUSKEY.—William Skewis, April 9: There is no particular change to notice in the cross-cut north from the western end of this level. At the end of the first adit cross-cut we have begun to strip down the lode standing on the north side of the level, and stoped a portion of the back, where the lode is fully 6 ft. wide, composed of very rich quality gossan, grey and yellow copper ore, and also green carbonate and red oxide. An assay of some of the ore broken from this lode gave a produce of over 24 per cent. for copper. It is a very strong, masterly lode, and augurs well for good results in depth.

WYE.—J. Kitto and Son, April 7: During the past month we have made very good progress in driving the 70 cross-cut south, which is now in 9 fms., and has been driven through a strong and well-defined lode, containing lead and blende ores for the entire length. We may, however, remark that the ground already driven through is not sufficiently rich to pay for working with the present low price of lead. But as the principal shoot of ore in the upper levels was found on the south side of the lode, and a little to the east of the present cross-cut, we have every reason to expect to find its continuation, and to open out profitable ore ground on reaching that part, and driving on it in an easterly direction at the 70, which we shall do by a full set of men as fast as possible, and seeing we must now be getting very near the part referred to, an early and valuable improvement may reasonably be expected.

YSTWITH.—J. Kitto and Son, April 7: Since our last report very good progress has been made in the adit cross-cut south, and the rock driven through has been very similar in its character to that opened here for some time past; it contains small veins of quartz, and lets out large streams of water, but we have not yet met with anything of value. The rock-drilling machinery is in good condition, and doing its work very efficiently.

WATSON BROTHERS,

MINEOWNERS, STOCK AND SHARE DEALERS, &c

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The lode will soon be cut through at Cook's Kitchen, and, if good, shares will have a rise, as they are about 20*l.* lower than they were a few months ago.

A notice of the discovery in West Frances was given in the *Mining Journal* as soon as it was made, and has frequently been called attention to. Shares have risen 5*l.* per share, and will go much higher when a call has been made, and a determination shown to pay off the debt, and not wait for profits to do it.

We do not suppose that mining affairs, owing to the want of discoveries and the low price of metals, have been so depressed for many years as they are now. There is no speculation going on, no business doing, and much of the disappointment existing is owing to the fact that under the Limited Liability System shareholders will not respond to further issues of capital, and many mines are abandoned at the very time they ought to be prosecuted with vigour. It is a great mistake for agents to estimate the required capital for a mine at too low a sum; it is generally exceeded, and then arises difficulties and disappointment.

The expected discoveries at Polrose have not come off, and the difficulties with the machinery have been, it is true, frequent and embarrassing. We have nothing whatever to do with the management, and at the next meeting something decisive, we presume, will be decided upon.

A most satisfactory letter was received from the agent at D'Eresby Mountain last week, and if he is correct in his estimate we shall soon be in a good position. To pay 10 per cent. on the 1000*l.* debentures will only require a profit of 10*l.* a month, yet few *shareholders* have at present applied. The shares are fully paid-up, and as it was stated in the Circular the company have none unissued under 1*l.* each. These at present price on the market as well as the debentures should be looked after, but when things are low no one seems to care for them; when they rise 5s. or 10s. per share there may be a rush for them.

HUNGARIAN GOLD MINING.

The auriferous wealth of Hungary has been recognised for 10 or 12 centuries, yet until comparatively recently the efforts to obtain the gold has been of the most primitive character, the metal separated from the alluvials with a flat grooved tray, 1 metre wide, and about 1½ metre long, by the Wallachian gypsies forming perhaps the most important item in the annual statistics. At present, however, some of the most approved and scientifically contrived mining machinery has its origin in Hungary—one name, Rittinger, being sufficient to remind most of the readers of the *Mining Journal* that Hungary is not without mining engineers of undoubted ability, for Rittinger was but one of the many competent mining officials of which Austro-Hungary can boast. Yet the Hungarian mines have always laboured under the disadvantage of want of capital, and consequently operations have never been carried on upon a scale calculated either to ensure the prosperity of the mines or extend the reputation of the country. But in a region with such undoubted elements of success it only needed one or two striking discoveries to command attention to the entire country.

These discoveries have been made, and Hungarian gold mining is now beginning to command from English capitalists the attention it deserves. Two important and promising concerns have recently been noticed in the Journal, and now in the KRISTIOR (Hungary) GOLD AND SILVER MINING AND SMELTING SYNDICATE an enterprise is brought forward which bids fair to establish Hungarian mining in the estimation of the world. The capital is 50,000*l.*, in shares of 1*l.* each, of which 26,500 are offered to the public, the remainder being reserved for completing the purchase. The prospectus which will be found in another column states that the subscriptions are payable—2s. 6d. on application, 7s. 6d. on allotment, the balance upon shareholders receiving a report from the directors as to the satisfactory working of the property, and to be voted at a meeting of shareholders to be called for that purpose. Exceptionally favourable terms have been secured for the shareholders in this company by the arrangements made with the vendor, which give the shareholders the right of working the mine (upon which is erected 12 heads of stamps and a 6-horse power engine) proposed to be purchased by the company for one year from Feb. 6, 1884, and of taking coal free of charge from an adjoining colliery, this arrangement enabling the shareholders to test and prove the gold and silver mine and the colliery prior to completing the purchase.

The property, the rights to which have been secured for the company, and which (according to Messrs. Johnson and Matthey's assay) contains Gold, Silver, and Lead, is known by the name of Acziori St. Haronisag, and is situated on the Luperia Hill, in the district of Kristior, county of Hunyad; it is in the heart of the gold region, and consists of a perpetual lease of about 14,458 square metres in extent and six miners' concessions adjoining, giving a free right of search extending over an acre of 448 square klafters, or about 2681 English feet each. The reef already won, running north to south, has been opened by tunnels, the principal one being driven for 200 ft. into the hill due east. A gallery has been commenced running southward for 36 ft. One lode is from 3 to 4 metres wide, or averaging the enormous thickness of 10 to 13 ft. A shaft has been sunk for about 30 ft., this shaft having become flooded has been now filled up; the proprietors stated that 36 cwts. of ore taken from its bottom yielded 4*l.* worth of gold and 4*l.* 6s. 8d. of schlich or concentrates. By systematic working payable gold is ready with a great chance of this lower depth, if worked lower still, turning out grandly, several pans of the soft ore from inside the main tunnel and from ores lying at its mouth, were washed on the spot, and in all cases grains of gold were visible, and large quantities of black schlich which is stated to be worth at Zalathna 6 fls. 50 krtz. per 100 lbs., the carriage from Kristior to Zalathna costing 60 kreutzers.

The reports of Dr. Atcherley and Mr. Shenton are most encouraging, and the assay certificates of Messrs. Johnson and Matthey leave nothing to desire. The facilities for transport are now great, and the prospectus very truly states that the Hungarian Mines have produced gold since 1493. Agricola speaks of them in the 16th century as having been worked for over 1000 years, which would date them back to the 6th century, and Chalmers (1880) remarks that for a century and a half Transylvania became to the Romans what Mexico afterwards was to Spain. The Acziori Mine is reached by a road 25 miles in length from Deva Railway Station, the distance from Deva to Buda-Pest, the capital of Hungary, by railway being 260 miles. The railway rate from Deva to Buda-Pest is 5 fls. 50 kreutzers per 200 lbs. The syndicate proposes to erect a smelting-furnace at Kristior, or some other suitable site, from the working of which large returns may be expected, as the nearest furnace—the Government smelting works at Zalantha—is distant some 15 English miles. Large quantities of schlich lie at the surface of the various mines, the cost of carriage—60 kreutzers per 100 lbs.—preventing the otherwise ready sale. "The Zalantha furnaces worked up 787,425 fls. worth of schlich during the year 1882." Dr. Atcherley reports that smelting works "are always sure to be kept in pretty full work." West of and adjoining the Kristior Mine is the "Ruda" Mine, originally worked by the Romans on a large scale, and which has been the scene of the successful mining operations of one company for the last 43 years. At the mining village of Verespatak the Government works a large mine containing about 2000 galleries. Besides this mine there are about 2000 miners employed in private workings. At a mine known as "the Priest's Claim," at Staniza, the Priest states that the company, of which he is the head, never realises less than 10,000*l.* a year. At the weekly markets held at Abrudbanya gold is brought by peasants for sale to intermediaries, the result of their week's labour; and in the bed of the River Koros, in the neighbourhood of the Acziori Mine, the peasants can be daily seen washing the sand for gold. The enterprise altogether offers unusual attractions for capitalists.

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The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, APRIL 11, 1884.

IRON.	£ s. d.	£ s. d.
Pig, GMB, f.o.b., Clyde...	2 2 3-	—
,, Scotch, all No. 1 ...	2 3 0-	—
Bars Welsh, f.o.b. Wales	5 2 8-	—
,, ,, in London.	5 12 6-	—
,, Stafford., ,,	6 15 0- 7 0 0	
,, in Tyne or Tees ...	5 2 6-	—
,, Swedish, London...	9 0 0- 9 10 0	
Rails, Welsh, at works ..	5 2 6-	—
Sheets, Staff., in London	7 15 0- 8 0 0	
Plates, ship, in London .	8 5 0- 8 10 0	
Hoops, Staff., ...	6 15 0- 7 5 0	
Nail rods, Staff., in Lon.	6 15 0- 7 0 0	
STEEL.		
English spring	...12 0 0-18 0 0	
cast	...30 0 0-45 0 0	
Swedish, keg	...13 0 0-14 0 0	
,, fag. ham.	...13 10 0-14 10 0	
Rails at works.....	5 0 0- —	
,, Light, at works...	6 0 0-7 0 0	
LEAD.		
English pig, common..	...11 10 0-11 12 6	
,, ,, L.B.	...11 15 0-11 17 6	
,, ,, W.B.	...12 0 0-12 2 6	
,, sheet and bar..	...12 10 0- —	
,, pipe	...12 17 6- —	
,, red	...15 10 0- —	
,, white	...16 10 0-19 0 0	
patent shot ...	...14 15 0- —	
Spanish.....	...11 0 0- —	
NICKEL.		
Metal per cwt.	— - —	
Ore 10 per cent. per ton.	— - —	
SPELTER.		
Silesian, ordinary brands	14 7 6-14 12 6	
,, special brands.	14 12 6-14 17 6	
English Swansea	15 2 6- —	
Sheet zinc.....	18 0 0- —	

TIN.	£ s. d.	£ s. d.
English, ingot, f.o.b...	87 0 0- 88 0 0	
,, bars ,, ...	88 0 0- 89 0 0	
,, refined.....	89 0 0- 90 0 0	
Australian	83 15 0- 84 0 0	
Banca	nom. - —	
Straits	83 15 0- 84 0 0	
COPPER.		
Tough cake and ingot.	59 0 0- 60 0 0	
Best selected	60 0 0- 61 0 0	
Sheets and sheathing.	65 0 0- 67 0 0	
Flat Bottoms	69 0 0- 70 0 0	
Wallaroo	nom.	
Burra, or P.C.O.....	nom.	
Other brands ... nom.	60 0 0- 62 0 0	
Chili bars, g.o.b.	55 12 6- 55 15 0	
QUICKSILVER.		
Flasks, 75 lbs., WAR.	5 10 0- —	
PHOSPHOR BRONZE.		
Alloys I. and II.	£114 0 0	
,, V.	120 0 0	
,, VI. and VII.	135 0 0	
,, XI., Duro A, Duro B....	112 0 0	
BRASS.		
Wire	6¼d.- —	
Tubes	6¾ - —	
Sheets	6¾ - —	
Yel. met. sheath. & sheets	5½-5¾d.	
TIN-PLATES.*	per box	
Charcoal, 1st quality ..	1 1 0- 1 2 0	
,, 2nd quality ...	0 19 6- 1 0 0	
Coke, 1st quality	0 16 3- 0 16 6	
,, 2nd quality	0 15 3- 0 15 6	
Black..... per ton	15 10 0- —	
Canada, Staff. or Gla. at Liverpool	11 0 0- —	
Black Taggers, 450 of 14 × 10	30 0 0- —	

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than IC quoted above, and add 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—During the past week the market has been a little variable, one day there has been considerable dulness and depression another an extra amount of cheerfulness, one day there has been little or no disposition shown to do business another transactions have been more frequent, one day prices have displayed a weakening tendency and another they have shown symptoms of advancing. In short, the markets have been fluctuating, but their actual position is without change. The Board of Trade Returns for the month of March are not satisfactory, and add another proof to the limited profits that have recently been made. We need only refer to the item that has reference to metals and the value of the exports is put down as 3,258,023*l.*, against 3,514,090*l.* in March last year, being a decrease of 256,067*l.* This large reduction may be chiefly attributed to the depreciation of prices, and confirms the report of little or no remuneration upon transactions in metals. A contemporary remarks that the diminished export of railroad and other iron is about set off by increased consignments outwards of woollen yarn. This is a view which may give some satisfaction to those who are only interested in the total aggregate trade, but here where we have to deal exclusively with metals it is most unsatisfactory to find a decrease in the exports of that particular branch of commerce, especially as the very low price ought to stimulate the demand, and encourage business. Referring to the imports, the Board of Trade Returns show an increase in the value of metals of 132,923*l.*, the total value last month being 1,585,124*l.*, against 1,452,2 1*l.*

An evidence of the bad state of trade at the Cape, which also naturally bears an unfavourable influence upon our market, may be gathered from the non-declaration of any dividend by the principal line of steamers to that colony, also by the statements made at the meeting of the shareholders of the Standard Bank of South Africa last Tuesday; nevertheless it is satisfactory to note from high authority that there is a good prospect of a fast approaching revival there. This week business has been interfered with through a variety of causes. Last Saturday the market was closed owing to the funeral of the late Duke of Albany, and since which the University Boat Race, the Quarterly Meetings of the iron trade, and the near approach of the Easter holidays, have all tended to draw people away from business, while our market will remain closed from to-night until next Tuesday morning.

COPPER.—A greater amount of animation has characterised the market this week than what has lately been bestown upon it, the consequence being that slightly better prices have been realised. This is satisfactory, because holders for many months past have had a very anxious and trying time to pass through, and an opportunity has thus been afforded them to slightly minimise some of their losses. At the same time, the course of the market bespeaks a very unpromising future. As soon as slightly higher prices have been quoted sales have been freely pressed, thus indicating that there is little or no confidence in the stability of the market. It is true that statistics have improved, but in these times statistics do not govern the market. Attention is directed to the heavy state of the market, to the general depression in trade, the absence of speculative enquiry, the uncertainty of forthcoming supplies from America and Spain, the reduced prices advised from the Indian markets, the advanced rate of discount of the Bank of Bengal, and, naturally under such circumstances, many holders have wished and been even anxious to avail themselves of the little spurt that has been effected.

IRON.—Business in this metal continues quiet, and prices for the most part remain steady. Manufacturers almost all round still continue to complain of a scarcity of orders, and in the raw material the speculative element is lifeless. At the various quarterly meetings held during the week business has been particularly inactive, and while prices have mostly shown symptoms of ease, yet no actual fall has been declared, probably on account of prices being already considered too low. At the same time orders do not flow in, and manufacturers are doubtless of the opinion that reduced rates would not stimulate the demand sufficiently to compensate them for the losses they would sustain in manufacture, and consequently quotations are nominally unaltered. According to advices from Scotland the quotations for maker's iron are slightly easier, and the amount of business being transacted is decidedly limited. The Glasgow warrant market has continued dull and lifeless, and business on Monday was done down to 42s. 0¼d., but on the following day there was slightly more animation, and transactions were recorded betwixt 42s. 1¼d. and 42s. 3d. per ton. Yesterday a very fair business is reported to have been carried through, and the price was steady at 42s. 2d., and the closing figure this afternoon is 42s 3d. The shipments last week were 11,574, against 12,328 tons for the same week of last year, being a decrease of 671 tons, and which makes the total shipments for the whole of this year 139,759 tons, against 150,229 tons for the same time of last year, and 157,939 tons for the similar period of 1882. There are still 93 furnaces in blast, and the public stock has been reduced by 559 tons, and now amounts to 594,049 tons, against 594,608 tons last week. The imports of Middlesborough pig-iron into Grangemouth last week were 4035 tons, against 5819 tons for the same week of last year, being a decrease of 1784 tons, and which makes a total increase for the whole of this year compared with last of 8295 tons.

At the Quarterly Meeting of the Cleveland Trade, held at Middlesborough last Tuesday, there was considerable quietude in all branches of the trade, and prices showed an easier tendency by about 3d. per ton, the present quotation for No. 3 being 37s., and for No. 4 forge 35s. 9d., with sellers over and buyers slightly under. Transactions are chiefly for prompt delivery, as neither buyer nor seller care to enter into contracts for forward prompts at current rates. The stock in public store remains unaltered, and there seems to be a generally unfavourable view taken of the immediate future. There is a decreasing demand for all branches of manufactured iron, and the shipbuilding trade shows no symptoms whatever of improvement. As regards prices, the present rate for bars is 5*l.* 2s. 6d. to 5*l.* 5s.; angles, 4*l.* 15s.; ship-plates, 5*l.*; and sheets 7*l.* per ton. At the Wolverhampton Quarterly Meeting, yesterday, the market was dull and all mine pigs were quoted at 30s. for cold-blast and 60s. for hot-blast. Staffordshire part-mine pigs are quoted at 45s.; cinder pigs, 40s. to 37s 6d.; Tredegar hematites, 48s. 6d.; Derbyshire pigs at 44s. to 45s.; Northampton, 42s.; and, with reference to the finished iron trade, flat bars are quoted at 5*l.* 2s. 6d. for Earl Dudley's, and 7*l.* 10s. for other makes. Medium bars are held for 6*l.* 10s., and common sorts 5*l.* Sheets are quoted 7*l.* for singles, 7*l.* 15s. for doubles, and 8*l.* 10s. for lattens.

TIN.—In the actual state of this market there is but little change to report. Taken on the whole business has not been particularly active, but prices have fluctuated, now in one direction then in another; but the up and down movements have only resulted in leaving prices very much about the same as they were a week ago. These fluctuations do not in any way indicate the future. It is possible that prices may be on the eve of advancing or receding, but nothing can be gathered from the course of prices during the week. The sanguine argue that prices are so low compared with what they have ruled during the past two years or so, and therefore urge that they must advance. On the contrary, the pessimist believes that current prices leave a very handsome return to producers, and therefore on that account prices may recede. Doubtless both parties have good reasons for their opinions, but it is worthy of note that with all the variety of opinions that are from time to time expressed prices hang about 83*l.* to 83*l.* 10s. per ton for sharp cash parcels of foreign, with, of course, a few daily fluctuations of a more or less serious character.

STEEL.—There is no change to report in this market either as regards the demand or prices.

TIN-PLATES.—The demand is slightly more active, but there is no change to report in prices.

SPELTER.—The market remains steady, and but a small business is doing.

LEAD is firm, but transactions are not numerous.

QUICKSLVER.—There is no change in price, and but little doing.

Notwithstanding the near approach of the Easter holidays, and the fact that the usual fortnightly account has occupied the chief attention of the dealers in the MINING SHARE MARKET this week, there has been a good demand for some of the best tin mines, and at prices in advance of those of last week. The mines chiefly dealt in have been Dolcoath, East Pool, Wheal Agar, West Frances, South Frances, Cook's Kitchen, Wheal Crebor, West Kitty, and a few others.

TIN.—Mines have been more in demand and a further advance has taken place in the prices of the most prominent, such as Dolcoaths, South Frances, Wheal Agar, &c. Cook's Kitchen, 10½ to 11¼; Carn Brea, 3 to 3½; Dolcoaths have further advanced to 75, 77½; East Pool, 41 to 43; East Lovell, 15s. to 20s.; East Blue Hills, 5s. to 7s. 6d.; Killifreth, 6s. 3d. to 8s. 9d.; New Kitty, 1⅝ to 1¾; South Condurrow, 8 to 9; South Frances have advanced to 10, 10½; Tincroft, 4½ to 5; West Basset, 3¾ to 4¼; Wheal Basset, 3¾ to 4¼; Wheal Peevor, ⅝ to ¾; an official circular has been issued to the shareholders informing them of the discovery of a new lode averaging 2½ ft. wide, the tinstuff from it yielded an average produce of 84 lbs. of tin to the ton. The agents look upon it as an important discovery, as it will soon be intersected in the 48 cross-cut also. West Frances, 11 to 12; West Kitty, 11½ to 13; Wheal Grenville, 5 to 5½; Wheal Kitty (St. Agnes), ⅜ to ½; Polberro, 25s. to 30s., and in demand; Trevaunance, 2½ to 3; the lode here holds rich as it was at the meeting. South Kitty, 9s. to 11s.; Wheal Uny, ¼ to ½; Phœnix, 1⅜ to 1½; South Crofty, 3½ to 4; Tresavean, 6s. 3d. to 8s. 9d.; Mounts Bay, 4s. to 6s.; Wheal Agars have advanced to 14, 15 ex div.

COPPER mines are not much dealt in at present, and prices for the most part are merely nominal. Bedford United, 1⅜ to 1½; Devon Great Consols, 3 to 3½; Gunnislake (Clitters), ⅜ to ⅞; West Crebor, 1s. 6d. to 2s. 6d. Wheal Crebor, 1½ to 1¾; there is no particular change in the report this week, the copper points are worth 48 tons and the mundic 23 tons per fathom in the aggregate. Mellanear, 1 to 1¼; the accounts for the year ending Dec. 31 last show a profit of only 1256*l.* 16s., although the ores sold exceeded in quantity that of the preceding year. Thus in 1882 6745 tons 12 cwts. realised 23,507*l.* 5s. In 1883 6793 tons 12 cwts. 2 qrs. brought 19,264*l.* 7s. 6d. The company have a reserve fund of 2000*l.*, and the reserves in the mine are computed at 11,422 tons, or 1950 tons less than last year. West Seton, 3 to 3½. Prince of Wales, 4s. to 6s.; the agent writes that No. 2 cross-course has been intersected at the No. 2 cross-cut east, and letting out water freely. The lode as far as seen looks well, and some "splendid stones of tin have been taken from it to-day." Devon Friendship, 1s. 6d. to 2s. 6d.; New Cook's Kitchen, 2 to 2½; South Caradon, 7s. 6d. to 10s.; West Caradon, 2s. to 4s.; West Crebor, 1s. 6d. to 2s. 6d.; West Seton, 3 to 3½.

In LEAD mines there is no change, and quotations are merely nominal. Vans are quoted 1½ to 2½. Great Laxey, 10½ to 11; a dividend of 5s. per share has been declared. Roman Gravels, 4 to 4¼. Tankerville Great Consols, 6d. to 1s. 6d.; the sales this week of 50 tons of lead ore from Pennerley and 30 tons from Tankerville realised 530*l.* In South Darren the 130 west is looking well, worth 2 tons of silver-lead ore per fathom. The sale to-day of 30 tons of lead ore realised 348*l.* 15s. Ecton, 1¾ to 2¼; East Wheal Rose, 3-16 to 5-16; Great Holway, 1½ to 2; Leadhills, 2 to 2½; Old Shepherds, 15s. to 17s.; Weardale, 1¼ to 1½. D'Eresby Mountain, 5s. to 7s. 6d.; the prospects of this mine are improving. It is hoped the new shaft will be completed this month and regular returns commenced.

FOREIGN MINES.—A satisfactory amount of business continues to be done in foreign mine shares, and prices are somewhat better. The directors of Mason and Barry, at their meeting, on Thursday, after writing off the sum of 33,000*l.*, and placing to sinking fund the sum of 20,000*l.* (and subject to completion of audit) have decided to recommend, at the annual meeting of shareholders, to be held next month, the withdrawal of the sum of 50,000*l.* from reserved fund account, and the payment of a final dividend for the year 1883 of 15s. per share, free of income tax, making, with the interim dividend of 10s. per share paid in October last, a total dividend of 25s. per share, or 12½ per cent. for the year, and to carry forward a balance of 4345*l.* to next account. The Transvaal concerns have been unfavourably affected by the discouraging revenue accounts published in the Staats Courant—the official gazette of the Republic—which shows that last year the revenue was in round numbers little over three-fourths of the preceding year. The gold licences fees are among the few items showing an increase, and even here the improvement is so small that it is considered evident that Transvaal gold mining commands less attention in the Republic than in Europe. The confidence in the Transvaal gold mines has always been exceedingly limited, and it is now feared that the collapse will now come sooner than was anticipated. Many of the prices are still quite nominal. Almada and Tirito are quoted 7-16 to 9-16; Australian, 2½ to 3; Birdseye, ¼ to 1; Bratsberg, 1½ to 2; it is reported that the mines never looked better than at present. Callao Bis, ⅜ to ½; Cape Copper, 42 to 44; Colombian Hydraulic, ¼ to ⅜; Colorado United, 2¼ to 3; Frontino and Bolivia, ⅞ to 1⅛; General Mining, 6 to 6¾; Indian Glenrock, 1-16 to 3-16; Kapanga, ⅛ to 3-16; La Plata, ¼ to ⅜; the telegram from Leadville states that the quarter's profit was $27,000, and the ore supply good. Mason and Barry, 12 to 12¾; Michipicoten, ½ to ⅝; Mysore, 3-16 to 5-16; New Callao, 5s. to 6s.: New Emma, ⅜ to ½; Nouveau Monde, ⅛ to 3-16; Organos, 1⅛ to 1¼; Orita, ⅝ to ¾; Panulcillo, 4¾ to 5¼; Richmond, 3¼ to 3¾; Rio Tinto, 20½ to 21¼; Ruby and Dunderberg, ⅞ to 1⅛. South Australian mines, ⅛ to ¼: at the Blinman Mine the stopes are yielding from 2 to 4 tons of 25 per cent. ore per fathom, keeping the dressing machinery in full work, and producing an output at the rate of 120 tons of 25 per cent. ore a month, which at 11s. a unit, the present price of ore, represents a value of 1650*l.* St. John del Rey, 55 to 65; Tharsis, 6¼ to 7; Tolima, A, 7 to 8. United Mexican, 11 to 11½; these continue to command the chief share of the speculation on the market. The telegram received on Thursday is rather indistinct, but the excess of returns over outlay in the mine of San Cayetano de la Ovejera for the week ending April 5 is believed to be $9000. West Callao, 4s. to 6s.

The Market for Mine Shares on the Stock Exchange has displayed considerably more legitimate activity throughout the week, and prices generally are higher, which is the more gratifying when it is considered that business has been interfered with both by the settlement, which was satisfactorily concluded on Wednesday evening, and by the approaching Easter holidays. The improvement is doubtless attributable to a better feeling in the metal market which was observable at the beginning of the week, and it is generally considered that a very small permanent advance in the price of metals would lead the way to great enterprise in connection with mining operations throughout the world. The too pronounced disposition of applicants for shares in new companies to estimate the integrity or fraud of the statements in the prospectus by the success or failure of their own speculations in the shares has frequently been pointed out in the *Mining Journal*, and it has been urged that whilst directors are seldom perfect, those shareholders who complain most loudly of directors' shortcomings are persons who connect themselves with companies for the sole purpose of share-gambling, and altogether regardless of the prospects of the enterprise embarked in. The protection of directors and promoters against frivolous litigation will be to a large extent secured by the decision of Mr. Justice Denman and Mr. Justice Manisty in the Queen's Bench Division on Tuesday. In the French Date Company prospectus it was stated that from the success attending the working of the patent in England, where there was 2d. duty and the coffee was sold at 1s. per pound, they confidently believed that the profits of the company would be more than sufficient to pay 50 per cent. on the nominal capital, and would exceed that of the English company, which had only been established a twelvemonth, and which had entered into a contract that would enable them to pay dividends equal to the whole paid-up capital of the company, 34,000*l.* On the other hand, the directors contended that what was stated as fact was true, that as to the future, it was only the language of hope, and that there was no such misrepresentation as would furnish ground for an action. The Judge in the Court below gave a verdict for 95*l.* for the shareholder, but the judgment now given reverses that decision. The question, said Mr. Justice Denman, in giving judgment for the directors, was whether the prospectus contained false statements. Did it state as a fact that there was success, or did it only express a confident belief that such success would be attained? Having considered this question in connection with all the surrounding circumstances, he had come to the conclusion that the latter was the true meaning of the passage in question. It expressed opinion rather than fact. He had come to the conclusion that there was not to be found in the prospectus any statement as an existing fact that the English company had already attained a large success; but there was the expression of a confident belief that the English company would make a large dividend, and the French company a still larger dividend. This being so, the learned Judge at the trial should have given judgment for the defendants upon the ground that the prospectus contained no untrue statement of existing facts, but only expressed confident opinion as to the future. A man was entitled to commend anything with which he was connected, but the moment he condescended to state facts, then he became responsible, if there was false statement, false to his knowledge, to any one who parted with his money in consequence of such statement.

The Land and Loan Company of New Zealand letters of allotment have been posted. It appears that 70,000 shares were applied for, and it is not the intention of the directors to make any further issue. The first call of 5s. per share has been postponed from May 1 to July 1.

The Kristior (Hungary) Gold and Silver Mining and Smelting Syndicate, with a capital of 50,000*l.*, in shares of 1*l.* each, has been formed to provisionally purchase for 32,000*l.* (of which 18,000*l.* is contingent upon a year's exploration warranting the completion of the purchase) the Acziori Gold Mine, and a colliery both in Hungary. The prospectus states that the reef already won, running north to south, has been opened by tunnels, the principal one being driven for 2 0 ft. into the hill due east. A gallery has been commenced running southward for 36 ft. One lode is from 3 to 4 metres wide, or averaging the enormous thickness of 10 to 13 ft. A shaft has been sunk for about 30 ft., this shaft having become flooded has been now filled up; the proprietor stated that 36 cwts. of ore taken from its bottom yielded 4*l.* worth of gold and 4*l.* 6s. 8d. worth of schlich or concentrates. By systematic working payable gold is ready with a great chance of this lower depth, if worked lower still, turning out grandly, several pans of the soft ore from inside the main tunnel and from ores lying at its mouth were washed on the spot, and in all cases grains of gold were visible, and large quantities of black schlich, which is stated to be worth at Zalathna 5 fls. 50 kreutzers per 100 lbs., the carriage from Kristior to Zalathna costing 50 kreutzers. Specimens of the ores were taken from the mine by Mr. Shenton, and sealed by the British Vice Consul at Buda Pesth (see certificate), and the box containing them was forwarded direct to Messrs. Johnson and Matthey assayed from ½ per cent. to 47 per cent. for lead, with from 3 dwts. to 13 ozs. of gold, and from 1 oz. to 22½ ozs. of silver to the ton of ore. The syndicate proposes to erect a smelting furnace at Kristior, or some other suitable site, from the working of which large returns may be expected, as the nearest furnace—the Government Smelting Works at Zalathna—is distant some 15 English miles. Large quantities of schlich lie at the surface of the various mines, the cost of carriage—50 kreutzers per 100 lbs.—preventing the otherwise ready sale. The Zalathna furnaces worked up 737,425 fls. worth of schlich during the year 1882. Dr. Atcherley reports that smelting works are always sure to be kept in pretty full work. West of and adjoining the Kristior Mine is the Ruda Mine, originally worked by the Romans on a large scale, and which has been the scene of the successful mining operations of one company for the last 43 years. At the mining village of Veresputak the Government works a large mine containing 2000 galleries. Besides the mine there are about 2000 miners employed in private workings. At a mine known as the Priest's Claim, at Staniza, the priest states that the company of which he is the head never realises less than 10,000*l.* a year.

The Adelaide Copper Mining and Smelting Company, with a capital of 100,000*l.*, in shares of 1*l.* each, is in course of formation, and will be brought forward under favourable circumstances immediately after the holidays. A Government railway in course of construction will pass within a mile of the mines, thus enabling them to be worked at a profit hitherto unobtainable. Timber for making charcoal being abundant it is proposed to smelt the ore on the spot by means of the Pacific Water-Jacket Furnaces, now so successfully used in America, from which it is expected large profits will be made even at the present low price of copper. It is mentioned in the prospectus that as the operations of the company will embrace mining and smelting by means of the Pacific Water-Jacket Furnaces, now so successfully used in America, the sources of revenue will be twofold, warranting the expectations of profits estimated at 20 per cent. and upwards on the proposed first issue of capital. The success in the enterprise is not dependent on working one mine, but from the large amount of ore contained in a group of mines. The produce sold has ranged from 18¾ to 47¼ per cent., and realised upwards of 60,000*l.* from ore raised near the surface. South Australian copper commands in the market over 3*l.* per ton more than the copper produced in other countries. The produce, whether as ore, regulus, or rough copper, can be sold to the English and Australian Copper Company at Adelaide, at the price of the day, thereby saving the expense and delay of shipment to England. The purchase-money (20,000*l.*) is taken in paid up shares with the exception of 3000*l.*, which includes the preliminary expenses up to an allotment.

Dolcoath, 76 to 78; a large business is reported to have been done in these shares during the past week, and an increased dividend is expected to be declared at the next general meeting of shareholders.

Devon Great United, ⅜ to ⅝; the 120 east has further improved, and is now worth 2 to 3 tons of copper ore per fathom. The rise in the 120 west is worth 6 tons, and in the 104 west, the winze sinking below this level is yielding 6 tons per fathom, and the 60 west on the middle lode is showing well for producing copper and mundic ores.

Devon Great Consols, 3¼ to 3⅜; the 205 east is worth 3 tons, and the 112 west, at Watson's, is also worth 3 tons of mineral per fm., and the 160 west presents good indications for deposits of mundic and copper ore.

Drakewalls, 6s. 6d. to 7s. 6d.; the agents report that the 90, west of engine-shaft, will now be driven by the aid of rock-drills, which will be the means of opening valuable tin ground.

Ecton, 2¼ to 2⅜; these shares are reported to have advanced upon continued buying, consequent on the progress making at the mines. The prospect at Chadwick's level and Swanlow's Mine are described as of the most promising character for further important discoveries.

Kit Hill, ⅛ to ⅜; the great tunnel level has been driven during the past week 11 feet, and in the shaft sinking below the 88 the lode is 6 ft. wide, yielding good tin ore as the sinking progresses.

West Basset shares advanced to 4, 4¼, with an upward tendency, it is stated, owing to the general improvements which are taking place throughout the mines.

South Devon United, ⅜ to ½; about 110 tons of copper ore are for sale next week. The lode in the 120 west continues to look well, being 6 ft. wide and worth fully 14*l.* per fathom.

South Frances, 10½ to 11¼; attention has been called to the development of these extensive mines for some weeks past, and the shares have steadily advanced. The mines continue to look exceedingly well, in confirmation of which the returns are gradually increasing. It is expected that at the next meeting of shareholders a large profit will be shown sufficient for the payment of a dividend.

Colorado United, 2⅛ to 2⅜; a report issued this week by this company gives information which must greatly encourage the shareholders, and prove of inestimable value to those capitalists who may have patience to prosecute deep mining in Colorado. It is predicted that they will find, in the operations of this company, and the developments of the Terrible Mine, a guide for their future work. At 840 ft. from surface, and 470 ft. below adit (Union Tunnel), after driving through a fine cross course 6 ft. wide, a body of mineral has been struck, extending as far east as the 13th level has been driven—a distance of 610 ft. With regard to the value of this immense ore body, it is considered impossible for the greatest expert to form any estimate that might not be considered exaggerated. The company's report states that of a block of ore taken from a winze sunk 40 ft. deep, 23 lbs. in weight, has been assayed by Mr. Claudet, of London, which gives 2032 ozs. of

silver and 62 per cent. lead per ton. This far surpasses the highest sales made lately in Colorado—at 700 ozs. This ore was taken from the levels above, and justifies the belief that the ore is richer as greater depth is attained. All ore which is mixed with rock, and which does not pay to ship (as it is termed) to the smelters, is run through the mill and concentrated. This mill is considered to be equal to any in the country, not only on account of its large capacity (50 tons per diem), but from the satisfactory results obtained from it. The cost of its erection has been nearly $70,000, and when it is considered that the mine has paid for it, in addition to the cost of driving five tunnels into the mountain in solid granite, and the sinking and driving of some miles of shafts and levels, besides dividends paid, this mine is not unreasonably ranked among "the giants of the West." It appears also from the report that this company is the owner of several adjoining mines, and that these are at present being worked on tribute, and producing ore of rich quality which leaves a satisfactory profit. Some of this ore has lately been run in the mill, and produced 225 ozs. of silver per ton. The company's financial position is highly satisfactory, there being no liabilities whatever on the mine.

Organos, ½ to ¾ prem.; a telegram has been received from the manager that a profit was realised for the month of March of 280*l*. In view, writes a correspondent, "of the improvement at the mines, and that so soon as the tramway from the Socorro portion of the company's property is completed the returns may be very largely increased, would appear that the company has now reached its turning point and that henceforward substantial and satisfactory profits may be looked for. The average quantity of gold obtained from the quartz, as shown by the crushings, would certainly indicate that the company has before it a great and prosperous career.

Ruby and Dunderberg, 1 to 1¼; the usual weekly report is chiefly interesting as regards further information about the late discovery of ore in the Lord Byron tunnel, which it states is improving, with an average width of from 2 to 4 ft Another small seam of good ore had also been found at the bottom of the Valentine shaft. The number of tributers was still increasing at the Dunderberg Mine, some very rich parcels of ore having been met with there lately. There was no change of moment at the Home Ticket Mine. The telegram received on Tuesday advises that the ore in the Lord Byron tunnel was then 4 ft. wide. The weather still continues very bad, and had prevented any ore being brought down from the mines during the week.

In Lead Mine Shares there has been very little doing, the price of lead remaining much too low to encourage capitalists to invest in this class of mines. The Great Laxey held its meeting in London on Wednesday, and the report of the proceedings will be found in another column. The shareholders appear to have fully recognised the fact that the omission of the usual quarterly dividend in January was entirely due to the depressed price of lead. The only question raised, and that was not pressed, was, whether the accounts could not be printed in book form, instead of upon one sheet. Cordial thanks were voted to the Chairman, directors, managers, secretaries, and other officers of the company.

UTILISATION OF TIN-PLATE SCRAP.—For the recovery and use of tin from tin-plate scrap and waste tin-plate articles Mr. R. S. LAIRD, of Corstorphine, Midlothian, proposes to dissolve the tin and separate it from the iron of the materials operated on by means of a solution of caustic soda or potash, and the action of electricity in such solution. This can be effected by apparatus so arranged that these materials and solution are made to form the positive element in an electric battery or single cell arrangement. It can also be effected by passing a current of electricity through them from a separate battery or from an electric machine. By modifying the arrangements, the tin may either be kept in the dissolved state, or received as a deposit. In the latter case it may either be a metallic deposit or in the form of a fine powder, presumed to be oxide. If a metallic deposit it may either be collected in fine filaments, or received as a coating on some metallic surface, in which last case the tin-plate materials form an anode and the metal to receive it a cathode. He claims that the novelty and utility of his invention consist in the application of these processes to the waste materials mentioned in the title, whereby the tin is recovered for a variety of useful purposes. When the materials are used as an anode for depositing on other articles the invention constitutes a most economical mode of tinning these articles. The tin is dissolved in a pure state from the iron of the materials, as the iron is not acted on by the solution, but is cleaned and prepared for reforging.

OSCAR GOLD MINE.

The following statement has been sent us by Mr. MURCHISON (the Chairman of this company), who is at present in Norway:—

Oscar Gold Mine, Bommel Island, Norway, April 5, 1884.

Having been at the above mine for the last two days, I am pleased to make the following statement. I went down the shaft on No. 1 lode to the bottom, which is about 10 fms. deep. At about 9 fms. I saw the rich branch of gold, from which the large stone at the office was broken. After this a shot was fired at this place, and I have got and will bring with me some very rich specimens from the lode thus broken down, and as good a lode is still left standing. About 2½ fms. above the bottom of the shaft some good stuff has been raised, which will be stamped, and the gold from it extracted as soon as the machinery is erected. This No. 1 lode is seen for about 5 ft. wide, but the whole width not laid open. No. 2 lode is about 150 fms. north-west of No. 1, and is over 6 ft. wide; and I saw gold in this lode, where laid open at the side of the hill, about 7 or 8 fms. from surface. No. 3 lode is about 300 fms. north-west of No. 2, and is about 12 ft. wide, and composed chiefly of quartz, a good deal of which is ferruginous, and it is from this lode that the slaty specimen (containing gold) at the office was taken.

It must be remembered that little or nothing has been said about the gold in this mine, except as regards what has been visible in No. 1 lode. It could not be expected that any large quantity of the lode could be even anything like so rich as the specimens which have hitherto been seen in London. No such thing, even in the richest gold mines of the world, has ever yet been discovered, and yet it may be said that in the case of the Oscar an unusual quantity of gold is visible. It may, however, be stated that the results of several experiments made to-day of large samples of the lodes in which no gold whatever could be seen have proved unprecedentedly satisfactory, although from the necessarily rough manner in which the experiments had to be made, not nearly the full contents for gold were obtained, I believe with the efficient machinery about to be erected at least double the produce will be got.

In the first place I took a large sample from the smalls found at the bottom of the shaft, in which no signs of gold could be detected. I had this bruised in an iron mortar; but it was impossible to make it as fine as it ought to be. This was then washed in pans by hand, and I have the result with me to show how rich it is. Not only were there many rough grains of stone unbruised, which I believe contained a good deal of gold, but I feel sure that a considerable portion of the gold as fine as flour was washed away.

I then went to No. 2 lode, and myself broke from it, where opened on in the level above referred to, a sample of about 4 lbs. weight, showing no gold to the eye. This also was bruised in the same way and washed, and I was quite surprised to see so rich a result. This also I bring with me, with a small sample of the stone which I broke to show the character of the stuff. When at the mine the first day I was shown some of this lode, and having broken some of the stones and seeing no gold I had about 12 lbs. weight of it bruised and washed. This gave astonishing results, which I bring with me.

However satisfactory and pleasing to the uninitiated the rich samples of visible gold may be, the fact now appears to be conclusively proved that the whole of the stuff in the lodes contains gold, which, if half as plentiful as even the rough experiments made to-day yielded, will make the Oscar Gold Mine a very great success: I might say one of the greatest of the kind, not forgetting the important consideration—the unusually small capital to pay on. This property is so near to England that almost anyone can visit it with ease and even pleasure, and test the statements made about it for himself.

There is already at surface a large quantity of stone raised from No. 1 lode waiting to be stamped; the value of the gold taken and given away from this lode alone since its first discovery, about 18 months ago, is estimated at above 1000*l*., while numerous specimens containing visible gold have lately been found in other lodes in different parts of the island, which is about 25 miles long by three miles wide, and is much more populous than I thought it was; labour is both plentiful and cheap, numbers of miners and others are applying for employment. The climate seems exceptionally good; at all events, during my present visit it has been more like June than the beginning of April, and I am told that the winters generally are not worse than in Scotland.

I need not say that the sooner the arrangements are completed for rendering the valuable resources of the mine available the better. The machinery being in course of construction, and under contract to be delivered in a few weeks, Capt. Daw, the managing director, has, with his son, the local manager, engaged a number of men, and taken the necessary steps to push on the works, and have all ready in time as far as they are concerned.

ANTIOQUIA (FRONTINO).—The ordinary meeting of shareholders was held yesterday. The work of driving the deep adit and draining the old workings has now been completed, and it is expected that before the close of the current month there will be a sufficient supply of ore raised to keep 30 heads of stamps fully employed. In the nine months which have elapsed since the closing of the accounts the working has left a small profit, even with an old and dilapidated six-head mill in operation. The Chairman of the company is about to proceed on a visit of inspection to the Frontino and Bolivia and Antioquia Mines.

EAST BOTALLACK,—*Important Discovery.*—The Chairman has just received telegram from Capt. Thos. Trahair.—I am pleased to inform you we have cut a good lode in the 20 end east; more particulars by post.

PHOSPHO MINING IN CANADA.—The Minister of Agriculture states officially that the amount of phosphates shipped from the Port of Montreal during the past calendar year was, in round numbers, 19,000 tons. This industry in its production materially benefits the country generally, as the men employed at the mines, the teams that haul it from the places of production, the freightage of it by rail, the ocean freight, &c., all represent capital expended by this agency. It is expected that 24,000 tons will be shipped from Canada to Great Britain during 1884.—*Liverpool Journal of Commerce.*

GOLD AND SILVER.—Messrs PIXLEY and ABELL (April 9) write: Gold continues to arrive in large quantities from New York, and, in the absence of demand for export, is nearly all bought by the Bank of England, which has received since the 3rd inst. 368,000*l*.; 10,000*l*. in sovereigns have been withdrawn for South America. The arrivals comprise 441,520*l*. from New York, and 11,500*l*. from Buenos Ayres. The Brindisi takes 10,000*l*. to Bombay. The arrivals of silver since last week have been large, and in order to effect sales the price was lowered to 50¼d., at which rate 69,600*l*. from the River Plate and 28,000*l*. from Chile were sold. The market is now cleared, and we give 50⅝d. as the nearest quotation to-day. The P. and O. steamer takes 212,700*l*. to India. The quotations for bullion are:—Bar gold, fine, 77s. 9d. per oz. standard; bar gold, containing 20 dwts. silver, 77s. 10½d. per oz. standard; Spanish doubloons, 73s. 9⅝d. to 73s. 10d. per oz.; South American doubloons, 73s. 8⅝d. per oz.; United States gold coin, 76s. 3½d. per oz. Bar silver, fine, 50⅜d. per oz. standard nearest; bar silver containing 5 grs. gold, 51⅛d. per oz. standard; cake silver, 54⅜d. per oz.; Mexican Dollars, 49⅜d. per oz., last price; Quicksilver, 5*l*. 10s.; discount, 3 per cent.

GAS SHARES.—The principal business in these shares, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, has been:—Bombay (Limited), 6⅜ to 6½; Brentford Consolidated, 192 to 193; Buenos Ayres New (Limited), 11¾ to 12⅛; ditto, 6 per Cent. Debentures, 1898, 101½ to 102¼; Continental Union (Limited), Original, 33½ to 34⅛; ditto, New, 1869 and 1872, 23¼; Gas Light and Coke, A, Ordinary, 202¼ to 204; ditto, C. 10 per Cent. Preference, 224; ditto, H, 7 per cent. Maximum, 143¼ to 145; ditto, 4 per cent. Debenture Stock, 106⅝; Imperial Continental, 194½ to 195½; Rio de Janeiro (Limited), 26½ to 28; South Metropolitan, A, 257½ to 258½; ditto, B, 213 to 214½; European (Limited), 20; Monte Video (Limited), 17⅞. London companies firm on the prospects of being bought up, in accordance with the Municipal Bill.

INSURANCE SHARES have, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, been dealt in as follows:—City of London Fire, ⅝ to ¾; Commercial Union, 17⅜ to 18; Employers' Liability Assurance Corporation (Limited), 2⅞; Eagle, 6⅛ to 6¼; Globe Marine (Limited), 1⅛; Guardian Fire and Life, 59 to 59½; Liverpool and London and Globe, 24¾; Lion Fire (Limited), ⅝; London and Provincial Marine, (Limited), 4⅝ to 4½; Marine (Limited), 28 to 28½; Merchants' Marine (Limited), 1 to 1⅛; North British and Mercantile, 27⅝; ditto, New Scrip Certs., issued at 15*l*. prem., 10*l*. paid, 26½; Ocean Marine, 5⅛ to 5⅜; Royal Exchange, 380 to 382; Standard Fire Office (Limited), 1; Universal Marine (Limited), 6⅝ to 6¾. Insurances steady.

TRAMWAYS.—The closing prices of this evening, as quoted by Mr. WM. ABBOTT, of Tokenhouse-yard, are given in tabular form in the last page of the Journal.

RAILWAY AND GENERAL MARKETS.—Referring to the course of business done to-day during official hours (11 to 3) Mr. Ferdinand R. Kirk Birchinlane, writes:—*Opening:* As yet there is no recovery from yesterday's heavy fall of 8*l*. in Mexican Ordinary, the price remaining at 46*l*. The retirement of Mr. Crawford from the Chairmanship of the company seems to be viewed with apprehension by the shareholders. Trunks are slightly better, the Ordinary being 12¼ to 12⅜; Second Preference, 73 to 73¼; and Thirds, 30⅛ to 30⅜. Erie are only $21½, Readings being $27⅛ to $27½. Owing to a pressure of sales, Old Shepherds fell at one time yesterday to 14s.; now quoted ¾ to 1. East Wheal Rose, 4s. to 8s.; Tresavean, 6s. to 8s. Organos continue to be in request, and are now 1⅛ to 1⅜, Orita being ¾ to ⅞, and scarce. United Mexican, 11⅜ to 11⅝; Richmond, 3¼ to 3⅝; Montana, 3¼ to 3½; Transvaal, 1½ to 1⅝; Great Holway, 1⅛ to 2; Minera, 2 to 3; Prince of Wales, ¼ to ⅜; South Caradon, ⅜ to ½; Wheal Crebor, 1½ to 1⅝; Bratsberg, 1*l*. 11s. 3d. to 1*l*. 13s. 9d.—*Closing:* Owing to the near approach of the holidays, very little has been done since the morning. Mexican railways have rallied to 47, and Trunks are from ¼ to ½ better. Rio Tinto, 20¾ to 21; Mason and Barry, 12⅛ to 12¾; Roman Gravels, 5 to 4½; Victoria Gold, ½ to ¾.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
April 8	Foxdale	100	£ 8 17 6	Walker, Parker, & Co.
	Pierrefitte	70	10 17 0	Quirk, Barton, and Co.
10	Tankerville Great Consols:—			
	Tankerville	30	6 12 6	ditto
	Pennerley	50	6 12 6	ditto
	South Darren	30	11 12 6	Panther Lead Co.
	Talargoch:—			
	Maesvreddu	15	7 5 0	Quirk, Barton, and Co.
	Coitia Llys	10	7 17 6	Walker, Parker, & Co.
	Rhosesmor	50	7 9 6	Quirk, Barton, and Co.
	Fron Hall	13	6 13 6	ditto
	Halkin	25	7 7 6	Walker, Parker, & Co.

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
April 10	Roman Gravels	30	£ 1 18 6	English Crown Co.

BLACK TIN.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
April 7	Phœnix United	20	£48 12 6	Daubuz and Co.

MINING OFFICES, 1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON, E.C.

ESTABLISHED UPWARDS OF FORTY YEARS.

MESSRS. WATSON BROTHERS, in referring to their public Circular in the *Mining Journal*, would also observe that they BUY and SELL SHARES at the *nett* market prices of the day in all well-established and respectable Mining Companies; also in English and Foreign Funds, Railway Stocks, &c.

HORACE J. TAYLOR,
(Seven Years Assistant-Secretary to the Port Phillip and Colonial Gold Mining Company (Limited).
38, GREAT ST. HELEN'S, LONDON, E.C.,
STOCK, MINING, AND MISCELLANEOUS DEALER.
ESTABLISHED 1874.

BUYER or SELLER of the following:—

100 Almada and Tirito.	70 Eberhardt.	100 Orita.
50 Bratsberg.	50 Flagstaff District.	200 Parys.
50 California Gold.	50 Frontino.	50 Potosi.
75 Callao Bis.	25 Gold Coast.	60 Prince of Wales.
100 Chile Gold.	100 Gunnislake (Clitters).	10 Ruby.
200 Chontales.	100 Homes Mines Trust.	50 South Caradon.
100 Colombian Hydraulic.	50 Killifreth.	100 Tresavean.
200 Corporation So. Aus. Copper.	100 La Plata.	25 Tolima A.
	60 Mounts Bay.	50 do B.
100 Devon Friendship.	20 New Emma.	10 United Mexican.
100 East Blue Hills.	200 Nouveau Monde.	100 Victoria Gold.
300 East Wheal Rose.	100 Old Shepherds.	75 Wheal Crebor.
	60 Organos.	

BANKERS: CENTRAL BANK OF LONDON (Limited).

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ARE BUYERS OF
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EDGAR JACKSON,
(Associate Royal School Mines),
ANALYST AND ASSAYER,
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BRISTOL SPELTER WORKS,
BUYERS OF
ZINC ASHES, ZINC OXIDE, HARD SPELTER, CALAMINE, &c.

JOHN M. STUART,
CONSULTING MINING ENGINEER,
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These properties have been placed in the hands of Messrs. WOOD and TREHERNE for IMMEDIATE SALE.
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20 Bedford United.	100 Parys Copper.	50 Co. So. Austra. Cop.
40 Carn Camborne.	30 Pennant.	75 Denver Gold.
10 Cook's Kitchen.	10 Roman Gravels.	50 Eberhardt.
50 Collacombe Consols.	10 South Caradon.	20 Flagstaff District.
75 D'Eresby Mountain.	10 South Condurrow.	100 Frontino.
5 Devon Consols.	75 South Darren.	100 Gold Coast.
100 Devon Friendship.	43 South Devon United.	60 Guinea Gold Coast.
30 Devon United.	50 South Frances.	30 Hoover Hill.
20 Drakewalls.	40 Tamar.	100 Indian Consolidated.
5 Dolcoath.	100 Tresavean.	100 Indian Glenrock.
50 East Blue Hills.	100 Tanker. Gt. Consols.	25 Javali.
25 Ecton.	20 Trevaunance.	50 Kohinoor B
80 East Caradon.	85 West Caradon.	100 Kapanga.
100 East Wheal Rose.	50 West Crebor.	150 La Plata
20 Frongoch.	60 West Gonamena.	50 Last Chance.
50 Goginan.	10 West Kitty.	50 Lisbon Berlyn
10 Great Laxey.	5 West Poldice.	20 Montana.
20 Gunnislake Clitters.	5 Wheal Basset.	30 New Emma.
10 Great Holway.	60 Wheal Coates.	100 Nouveau Monde
100 Grogwinion.	20 Wheal Crebor.	20 Organos.
50 Home Mines Trust.	10 Wheal Jane.	50 Orita.
20 Killifreth.		50 Potosi.
50 Kit Hill Gt. Consols.	100 Asia Minor.	15 Port Phillip.
20 Kitty St. Agnes.	50 Akankoo (fully paid).	10 Panulcillo.
100 Mounts Bay Consols.	50 Birdseye Creek.	50 Ruby & Dunderberg.
20 New Kitty.	25 Bratsberg.	20 Richmond.
30 New Caradon.	100 Canklim Bamoo.	50 Tocopilla.
80 Old Gunnislake.	25 Copiapo.	10 Tolima A.
75 Old Shepherds.	25 California Gold.	25 Transvaal Gold.
10 Phœnix United.	50 Callao Bis.	10 United Mexican.
30 Pennant.	40 Chile.	80 Victoria Gold.
35 Prince of Wales.	20 Chontales.	20 West Caradon.
	100 Colombian Hydraulic	100 Western Andes.

*** S. JAMES is a Buyer or Seller of any of the above Shares.
To save extra correspondence, and to prevent disappointment, buyers will please state the best price they will give, and sellers the lowest price they will accept, subject to reply by wire or return of post, whichever preferred.
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Notices to Correspondents.

STEATITE OR SOAPSTONE.—This mineral seems to be looked after at present, but why do not those requiring it come to Ireland, as I only know of one mine that is at present taken. It seems to be fairly plentiful in the counties of Mayo and Donegal, while it has been recorded in the counties of Galway, Wexford, Waterford, Wicklow, Antrim, &c. In some localities, especially Mayo and Donegal, it is better than in others.—G. H. K.: *Dublin.*

LIVERPOOL ENGINEERING SOCIETY—"R., R., and K" (New York).—The address not having been printed, much less published, in the Society's Transactions, but given in the *Mining Journal* from the President's manuscript, perhaps you will kindly acknowledge whence you reprint.

QUICKSILVER WAVE GOLD AMALGAMATOR—"N. N."—The inventor and patentee is Mr. Henry Moon, M.E., of Leicester. He has just published a pamphlet with reference to the machine, and we expect you can obtain one on application direct to him. We know nothing more about the machine than has been published in the Journal.

PRICE OF ANTIMONY.—"W. H. E." (Swansea): The present price for regulus of antimony (French star) is 43*l.* to 43*l.* 10s., and of crude 17*l.* to 20*l.*, according to quality. The other enquiry is answered by post.

Received.—"F. W. B." (Pachuca): Thanks—"J. A. R." (Wensley): There is no export duty on English lead. We know of no list giving the import duties charged upon it by the various foreign countries—"Pulsometer"—"R. S." (Truro): The letter omitted can only appear as an advertisement, and in the advertisement columns—"W. G.": Too late—"P. J. S.": Ditto.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, APRIL 12, 1884.

THE PROPOSED SCIENTIFIC AND TECHNICAL COLLEGE FOR SOUTH WALES.

We announced in last week's *Mining Journal* that an influential public meeting had been held in Swansea, convened by the MAYOR, for the purpose of promoting the cause of scientific and technical education, and the establishment of a College in that town, for the practical teaching of the applied sciences. If we may judge from the almost unanimous voice of the public, and the persistency with which this cause is advocated, the Government can scarcely much longer resist the appeal, more especially as it is generally understood that a further grant of 4000*l.* a year is to be made for educational purposes in South Wales. At the public meeting in question the resolution, ably proposed by Mr. R. D. BURNIE (the Mayor) to the effect "that the establishment of a Scientific and Technical College in Swansea, in which the teaching of technical science, engineering, mining, and similar studies, should be its leading features, would be a great national advantage"—was carried unanimously and enthusiastically. In support of this scheme a letter was read from the Stipendiary Magistrate of Swansea (Mr. J. C. FOWLER), in which he said—"I am heartily in favour of instituting a technical college in Swansea. It is indispensable—a want arising almost to a necessity. The locality is clearly the best in the kingdom—I may say, Europe—for such an establishment. If the Government grant an endowment it would conduce to the benefit not of Wales alone, but of England and Wales."

Several other gentlemen, including members of the Corporation, and others engaged in the great mineral and metal trades of the district, expressed similar views, and there can be no question that the whole of South Wales is now ripe for a practical solution of the long-continued agitation, and that its just claims for the endowment of a Scientific and Technical College cannot be much longer deferred.

Following the lines of the specilisation of all scientific research, the industries of the world are becoming more and more special in methods which they adopt, and more and more, therefore, does it become necessary to give to our handicraftsmen special instruction and special opportunities of study. The remarks of Prof. HUXLEY, in reference to the advantages of technical education, are emphatically correct when he says "A nation which cannot wield its industrial weapons scientifically must eventually succumb in the great and keen conflict of trade." This competition is daily becoming more severe; and England, although it has enormous natural advantages, can only expect to keep in the front ranks of this competitive race by the practical appliance of all the facilities which science and technical skill can command. So far as the whole of the vastly important mining and metallurgical industries of South Wales and the West of England are concerned this strange anomaly has existed. Although the Swansea district, including Llanelly, Neath, Britonferry, and Port Talbot is justly termed the great centre of the most varied metallurgic industries of the world, and, although this district almost more than any other requires special scientific knowledge on the part of the managers, and special training on the part of the working people, yet up to the present moment not the slightest provision has been made in the whole of this vast district for affording any such theoretical and special instruction in the treatment of metals, &c. The consequence of such a state of things—such neglect of educational facilities—is that not only are most of the positions of skill and trust in the various metal and other manufactories filled with foreigners (principally by Belgians and Germans), but vast colonies of the lower orders of these foreigners have been introduced into the district to carry out the various processes of the reduction and smelting of ores, &c., and our own workmen have been to a very great extent displaced.

The Government Educational Department some short time since went very exhaustively into the condition of education in Wales, but by some very remarkable oversight and almost unpardonable omission confined their attention almost exclusively to questions of classical and mathematical subjects. The outcome of this enquiry on the part of the Government is the establishment of a college for South Wales at Cardiff, and one for North Wales at Bangor; and possibly the Government will continue its grant to Aberystwith. Yet when all this has been accomplished it will only be possible for the youths of Wales to obtain literary culture (which all admit is most desirable, and even essential); but we shall come face to face with the crushing and undeniable fact that there is no single seminary throughout the whole of either North or South Wales where the people can be taught science or technology, and which is of vastly more importance and value than any mere literature to fit them to apply to modern life those scientific aids and facilities which now so largely appertain to all great metal and other manufactures.

It is true the Departmental Committee of Education did recommend, in a secondary manner, the establishment of science classes or rather additions to existing schools of scientific departments; but in view of the enormous magnitude of operations now going on in Wales in coal mining (steam, bituminous, and anthracite) requiring a large number of skilled mining engineers in winning; in view of the enormous operations in the smelting of all the known metals—copper, zinc, lead, silver, steel, iron, nickel, spelter, cobalt—in the manufacture of arsenic, superphosphates, distillation of wood, all of which exist in the neighbourhood of Swansea, and all requiring specially skilled managers and employees—in view of the rapid extension of railways and docks—the rapid growth of public buildings and dwellings—in view of all these things, no small science school where the training of boys in the mere elements of science, will meet the necessities of the case. Its supposition is an absurdity. What is really demanded for this large population in South Wales, now numbering a million and a half, and which is rapidly increasing, is a fully-equipped, well-supported College, with an adequate staff of able professors capable of training, not mere boys, but young men, in all the latest and improved results of scientific and technological experiments, so that they may be applied to the every-day needs of the manufacturing industries of the district. In order to establish and maintain such an institution with anything like efficiency, a Government grant is absolutely indispensable, not from a pecuniary point of view alone, but also with the view of maintaining and improving that prestige for our mineral and manufacturing industries upon which our national prosperity is built.

In proof of the justice of our remarks as to the imperative necessity, at the present juncture, of scientific and technical education over mere mathematical and classical knowledge, it is instructive to notice that the newly-founded College at Cardiff has already seen the desirability of attempting to establish a science department in connection with such College with the aid and advice of the South Wales Institute of Engineers, and have already advertised for a professor of engineering at a salary of 300*l.* per annum, and this branch of education is expected to be commenced at Cardiff in the forthcoming autumn. But our contention is—this is altogether in the wrong place, and can never be successful. Cardiff has no industries whatever worth speaking of; its phenomenal prosperity is due, and depends almost entirely upon, its exports of coal from the Rhondda Valley. If the mere theory of scientific and technical education could be imparted at Cardiff, the pupils would be bound to come to Swansea to see the various processes of smelting ores, manufacture of steel, iron, tin-plates, &c. One of the leading scientific men of the Royal Mint recently remarked, when in the midst of some of the chief metal works of Swansea—"One day's observation of hand and eye in these works is more valuable than 12 months' mere theoretical training at a distance." Truer or more opportune words could not be spoken. An efficient Scientific and Technical College for Wales is absolutely required—the whole people are prepared to help the present movement forward to the best of their ability. Such College can, however, only be efficiently established and maintained by means of a Government grant; and we cannot think such grant can be longer denied, having regard to the momentous interests at stake and the future welfare of the great mining and manufacturing industries of the district.

ECONOMICAL APPLIANCES AT COLLIERIES AND IRONWORKS.

At the present time when colliery owners and ironmasters are earning only small profits evidences happily are forthcoming of the increased attention which they are paying to reduce the cost of production in every possible way. One of the most important items is the coal account, entailed in the creating of steam-power. At numbers of our collieries and ironworks, and engineering establishments proprietors and managers are doing all they can to curtail the expenditure under this head. Certain of them, such as the Yarlside Mining Company, the Sandscale Mining Company, Dalton-in-Furness, the Monkbridge Iron Company, Leeds, the Leeds Forge Company, the Dearham Main Colliery Company, Maryport, the Ebbw Vale Steel and Iron Company, Messrs. John Elder and Co., Glasgow, the Barrow Shipbuilding Company, and other concerns in Lancashire, Yorkshire, Cumberland, Durham, and other parts of the kingdom are adopting the appliance known as the Berryman Patent Feed Water Heater, made by Messrs. Joseph Wright and Co., of Tipton, Staffordshire. The saving of fuel which resulted is remarkable, and Messrs. Wright are receiving repeat contracts from numerous districts. One contract upon which the firm are just now engaged is for a celebrated Manchester firm, and includes a number of heaters of the largest size. Each heater will be over 33 ft. high. They are not only to supply boiling hot feed water for 11 large Lancashire boilers, but also for washing purposes throughout the entire works. When erected they will weigh over 110 tons. Sixty-seven steam-engines will exhaust into the heaters, which are calculated to heat and purify 12,000 gallons of water per hour. By their application the firm confidently expect to realise the enormous saving of about 6000 to 8000 tons of coal per annum, besides a reduction of about 800*l.* a-year in their soap account, and further economy in other ways, which so large a saving of coal must bring about. These heaters will be the largest ever made. They are equal in force to about six double-flued Lancashire boilers, 7 ft. by 28 ft., which they are intended to represent, and the yearly saving of from 6000 to 8000 tons of coal is about the quantity six such boilers would take to drive them. It should, however, be noticed that whereas the cost of the heaters—which is about the same as the cost of the boilers—has to be paid once for all, the cost of the boilers would have to be repeated every year in payment of coal accounts, &c.

THE PRODUCTION OF COAL, &c

The return of the quantity of coal raised in the United Kingdom for 1883 shows an increase of 7,237,350 tons over the previous year. Thus the vast development of our coal fields which may be said to have commenced in earnest, and indeed startled the public in 1880, has continued in nearly a corresponding scale. It was certainly expected that last year would show an increase over the previous one, but few we believe calculated upon its being so much, especially as in several of the most important of our mining districts there was a good deal of idleness caused by strikes. Wages were certainly not exceptionally high, and this may be taken as one of the principal reasons for the output per man being much higher than for many years past. Singular to say, too, the iron trade during the greater part of last year was the reverse of brisk, the production in fact having been 3000 tons less than in the previous year. Iron making consequently had nothing whatever to do with the increased production and consumption of coal. Neither was it aided in any way by the manufacture of steel, for 120,269 tons less of Bessemer ingots were made in 1883 than was the case in 1882, and the same remark applies to other descriptions of fuel. Nearly all our great industries were also more than usually quiet, so that there is some difficulty in accounting for the disposal of the vast increase in the production of coal in 1883. There is no doubt that the price of coal affects its consumption as is the rule with respect to most of our necessaries. Householders are not so careful of their fuel when it is at a very low price as when it is exceptionally high, whilst a low rate also ensures a greater demand from abroad. Last year indeed there was a marked increase in our exports of fuel, although in most of the Continental markets there was more competition than ever. More steam coal was also required for both our Royal Navy and the Mercantile Marine, whilst every year increases the demand for gas coal, for the electric light has not as yet affected the requirements of gas companies, whilst there is now a great and growing demand for it for gas-engines. The late Prof. JEVONS, in his able work on the probable exhaustion of our coal mines in 1870, considered that for many years to come there would be an annual increase at the rate of 4,000,000 tons. This at the time was considered to be by far too high an estimate, but the output during the last four years has led to the annual increase anticipated by Prof. JEVONS being considerably increased. It also shows that some of our coal fields will be exhausted sooner than was expected owing to the drain made upon them during the last few years. The tonnage raised since 1869, the number of men employed, and the output per man were as follows:—

Year.	Tons raised.	No. of men employed.	Output. Tons per man.
1870	110,431,192	350,894	314
1871	117,352,000	370,881	316
1872	123,497,300	418,088	291
1873	127,016,700	512,199	248
1874	125,067,900	538,829	232
1875	131,867,100	535,845	246
1876	133,344,800	514,532	259
1877	134,610,700	494,391	272
1878	132,610,900	475,329	279
1879	133,808,000	476,810	281
1880	146,969,000	484,933	303
1881	154,186,300	495,477	311
1882	156,499,977	503,987	312
1883	163,737,327	514,933	317

It will be seen that in the years when coal was at its highest, beginning with 1882, that there was a marked falling-off in the output per man, but when prices and wages come down, as in 1875, the men had to turn out more coal.

GOVERNMENT INSPECTION OF MINES.

THE INSPECTORS' REPORTS.

Through the courtesy of the Under-Secretary of State for the Home Department we are enabled to give, from advance sheets from the Government Inspector's reports, the usual summaries for 1883. The general summary shows that during the year 1883 the aggregate number of persons employed in and about the whole of the mines in the United Kingdom of Great Britain and Ireland amounted to 565,168 persons. Of these 514,933 were employed under the Coal Mines Regulation Act, and 50,235 under the Metalliferous Mines Regulation Acts. The total number of fatal accidents was 989, and the total number of deaths occasioned thereby 1140, showing an increase, compared with the totals for 1882, of 30 in the number of fatal accidents, and a decrease of 78 in the number of lives lost. The general summary also shows that, on an average, during the year 1883 there was one fatal accident amongst every 571 persons employed, and one death by accident amongst every 495 persons employed, The average for the 10 years—1874 to 1883—is one fatal accident for every 594 persons employed, and one death by accident amongst every 458 persons employed. The proportion of fatal accidents in 1883 to the number of persons employed is, therefore, lower than the average of the last eight years, and the death-rate is also lower. We subjoin our usual tabulated summary, which will permit of the several classes of accidents being compared:—

COAL MINES—1882.

Names of districts.	Separate accidents. Explosions of fire-damp.	Falls of coal, sides, and roof.	In shafts.	Miscel., in mine and at surface.	Total.	Deaths resulting. Explosions of fire-damp.	Falls of coal, sides, and roof.	In shafts.	Miscel., in mine and at surface.	Total.
Northumberland, Cumberland, & North Durham	3	32	9	24	68	6	34	9	24	73
South Durham & Westmoreland	4	35	4	26	69	125	35	4	26	190
Cleveland, ironstone	1	10	—	9	20	2	10	—	9	21
North and East Lancashire	2	36	7	18	63	2	36	8	18	64
Ireland	—	—	2	—	2	—	—	2	—	2
West Lancashire and N. Wales	2	35	12	44	93	3	36	12	44	95
Yorkshire	2	54	3	26	85	8	55	4	26	93
„ coal field ironstone	—	2	—	—	2	—	2	—	—	2
Lincolnshire ironstone	—	—	—	—	—	—	—	—	—	—
Derby, Notts, Leicester, Warwick	4	34	4	19	61	70	34	6	23	133
„ ironstone and fire-clay	—	—	—	—	—	—	—	—	—	—
North Staff., Cheshire, Salop	1	20	10	13	44	2	21	11	13	47
„ ironstone	—	5	3	—	8	—	6	3	—	9
South Staff. and Worcestershire	—	31	7	8	46	—	32	9	8	49
„ ironstone and fire-clay	1	4	1	—	6	1	5	1	—	7
Monmouth, Glo'ster, Somerset and Devon	3	36	6	18	63	11	35	6	20	72
„ ironstone	—	—	—	—	—	—	—	—	—	—
South Wales	5	65	17	48	136	8	66	22	48	144
„ ironstone	—	—	—	—	—	—	—	—	—	—
East Scotland	5	30	12	17	64	7	31	14	17	69
„ ironstone and shale	1	3	—	1	5	4	3	—	1	8
West Scotland	1	20	4	8	33	1	20	5	8	34
„ ironstone and shale	—	6	—	2	8	—	6	—	2	8
Total coal mines	32	429	97	269	827	243	436	112	280	1071
Total iron, fire-clay, and shale	3	30	4	12	49	7	32	4	12	55
Gross total	35	459	101	281	876	250	468	116	292	1126

COAL MINES—1883.

Northumberland, Cumberland, & North Durham	1	32	6	31	70	2	32	7	31	72
South Durham & Westmoreland	—	31	3	31	65	—	31	3	31	65
Yorkshire, North Riding	—	16	—	14	30	—	16	—	14	30
North and East Lancashire	3	35	6	15	59	74	35	11	16	136
Ireland	—	1	—	—	1	—	1	—	—	1
West Lancashire and N. Wales	2	50	6	24	82	3	50	6	24	83
Yorkshire	1	48	6	33	88	20	48	6	34	108
„ ironstone	—	—	—	—	—	—	—	—	—	—
Lincolnshire ironstone	—	—	—	1	1	—	—	—	1	1
Derby, Notts, Leicester, Warwick	1	40	4	27	27	2	40	4	28	74
„ ironstone and fire-clay	—	—	—	—	—	—	—	—	—	—
North Staff., Cheshire, Salop	2	14	5	13	34	9	14	5	14	42
„ ironstone	—	4	—	1	5	—	4	—	1	5
South Staff. and Worcestershire	2	29	7	18	56	2	29	9	18	58
„ ironstone and fire-clay	—	1	—	—	1	—	1	—	—	1
Monmouth, Glo'ster, Somerset and Devon	4	31	7	21	63	9	31	7	21	68
„ ironstone	—	—	—	—	—	—	—	—	—	—
South Wales	5	80	10	76	171	9	82	13	76	180
„ ironstone	—	—	—	—	—	—	—	—	—	—
East Scotland	1	33	13	28	75	1	35	16	29	81
„ ironstone and shale	—	2	2	2	6	—	2	2	2	6
West Scotland	3	13	4	13	33	3	13	5	13	34
„ ironstone and shale	—	5	3	1	9	—	5	3	1	9
Total coal mines	25	437	77	330	869	134	441	92	235	1002
Total iron, fire-clay, and shale	—	28	5	19	52	—	28	5	19	52
Gross total	25	465	82	349	921	134	469	97	254	1054

With regard to the mines classed under the Coal Mines Regulation Act, 1872, there is given a summary showing the number and ages of the male persons employed both above and below ground, and also the number and ages of the females employed above ground, together with the quantity of mineral raised in each of the twelve inspection districts. It appears that 514,933 persons were employed in and about the mines under the Coal Mines Act. Of these 416,696 were employed underground, and 98,237 (of whom 4479 were females) employed above ground, thus showing, as compared with the respective numbers employed during the year 1882, an increase of 10,946. No. 2 summary contains an account of fatal accidents and lives lost. The fatal accidents during the year 1883 in and about all the mines under the Coal Mines Regulation Act amounted to 921, and the deaths occasioned thereby to 1054, showing an increase, when compared with the summary of 1882, of 45 in the number of fatal accidents, and a decrease of 72 in the number of lives lost. The next summary shows the proportion which the accidents and deaths bear to the number of persons employed and the quantity of minerals raised. It appears that on the average during the year under review there was one fatal accident amongst every 559 persons employed in and about the mines, and one death by accident amongst every 488 persons employed; and that for each fatal

accident 194,097 tons of minerals were raised, and 169,605 tons for each death by accident.

During the year 1882, for every 575 persons employed there was one fatal accident, and for every death by accident 447 persons were employed, and for each fatal accident the larger quantity of 195,586 tons were raised, and for each death by accident the lesser quantity of 152,161 tons. As compared with the preceding year, the returns show an increase in the number of persons employed, but a diminution of 107 mines at work. And lastly there is a summary, prepared originally by Mr. Dickinson, showing the ratio of the fatal accidents and the lives lost to the number of persons employed in and about the mines under the Coal Mines Acts in Great Britain from 1851, with Ireland from 1874 to 1883.

The subjoined tables show, amongst other things, that there has been an increase in the output of coal to the extent of 7,237,350 tons, or slightly under 4⅛ per cent on the entire annual production, against 1¼ per cent. in 1882, and against 4½ per cent. increase in 1881, which was exceptionally large:—

1882.

Name of districts.	As computed by each Inspector for his own district. Males employed.	Tons mineral raised.	No. employed per separate fatal accident.	No. employed per life lost.	Tons of mineral raised per separate fatal accident.	Tons of mineral raised per life lost.	Number of mines.
Northumberland, Cumberland, & N. Durham	49,044	16,266,106	721	672	244,844	228,074	210
" ironstone*	—	757	—	—	—	—	—
So. Durham & Westmor...	55,980	21,782,229	811	294	321,304	116,684	212
N. Riding of Yorkshire and Cleveland	8,009	4,925	400	381	316,592	301,516	45
" ironstone	—	6,326,314	—	—	—	—	—
North & East Lancashire..	31,807	9,749,363	502	494	158,538	154,092	309
Ireland	1,002	127,777	501	501	65,696	65,696	24
West Lancashire and North Wales	40,495	12,452,413	435	426	134,646	131,812	240
" ironstone	—	15,514	—	—	—	—	—
Yorkshire	61,548	18,525,406	707	648	218,185	199,812	452
" ironstone	—	175,681	—	—	—	—	—
Lincolnshire ironstone	139	98,725	—	—	—	—	10
Derby, Leicester, Notts, and Warwickshire	49,889	15,566,324	818	361	257,411	113,783	371
" ironstone	—	51,728	—	—	—	—	—
North Staff., Cheshire, and Shropshire	26,673	6,541,500	488	453	168,110	156,101	240
" ironstone	—	2,129,620	—	—	—	—	—
Sth. Stafford & Worcester.	23,773	10,120,000	457	424	202,478	188,013	410
" ironstone	—	177,000	—	—	—	—	—
Monmouth, Somerset, part Glam., & Brecon.	31,672	8,598,032	502	434	139,275	120,196	307
" ironstone	—	28,708	—	—	—	—	—
South Wales	54,658	16,250,768	402	379	121,264	114,528	374
" ironstone	—	99,223	—	—	—	—	—
East Scotland	42,420	14,161,015	614	550	231,288	207,258	337
" ironstone	—	723,139	—	—	—	—	—
West Scotland	25,486	6,354,119	621	607	204,648	199,775	273
" ironstone	—	1,681,038	—	—	—	—	—
Totals and averages	503,927	156,499,977	575	447	195,586	152,161	3814

* There were raised from the different districts:—Coal, 156,499,977 tons; fireclay, 2,209,036; ironstone, 11,505,447; and oil shales, &c., 1,119,572 tons: making the total of 171,334,032 tons.

1883.

Northumberland, Cumberland, & N. Durham	49,782	17,042,184	711	691	248,861	241,949	208
" ironstone*	—	1,010	—	—	—	—	—
So. Durham & Westmor..	57,077	22,140,935	678	878	346,348	346,348	214
N. Riding of Yorkshire and Cleveland	8,243	4,383	275	275	225,348	225,348	44
" ironstone	—	6,756,055	—	—	—	—	—
North & East Lancashire..	32,466	9,931,585	550	239	170,295	73,878	290
Ireland	972	126,114	972	972	129,514	129,514	24
" ironstone	—	—	—	—	—	—	—
West Lancashire and North Wales	41,720	13,304,307	509	502	162,854	160,892	236
" ironstone	—	6,230	—	—	—	—	—
Yorkshire	63,248	19,563,287	719	586	227,485	185,353	434
" ironstone	—	170,832	—	—	—	—	—
Lincolnshire ironstone	140	101,574	140	140	101,574	101,574	10
Derby, Leicester, Notts, and Warwickshire	52,118	16,637,304	724	704	232,886	226,592	369
" ironstone	—	48,242	—	—	—	—	—
North Staff., Cheshire, and Shropshire	24,689	6,457,500	633	525	217,114	180,158	242
" ironstone	—	1,918,500	—	—	—	—	—
Sth. Stafford & Worcester.	23,782	10,304,800	417	403	136,749	180,418	397
" ironstone	—	150,179	—	—	—	—	—
Monmouth, Somerset, part Glam., & Brecon.	33,759	9,228,868	535	496	150,218	139,172	291
" ironstone	—	30,768	—	—	—	—	—
South Wales	52,495	17,770,263	342	325	105,293	100,029	350
" ironstone	—	83,160	—	—	—	—	—
East Scotland	43,606	14,839,091	538	501	205,827	191,632	327
" ironstone	—	608,788	—	—	—	—	—
West Scotland	24,836	6,386,706	591	577	199,951	195,331	216
" ironstone	—	1,620,063	—	—	—	—	—
Totals and averages	514,933	163,737,327	559	488	194,097	169,605	3707

* There were raised from the different districts:—Coal, 163,737,327 tons; fireclay, 2,189,452; ironstone, 11,495,401; and oil shales, &c., 1,341,210; making the total of 178,763,390 tons.

METALLIFEROUS MINES—1881.

Names of districts.	Separate accidents. Falls of ground.	In shafts.	Miscellaneous underground.	At surface.	Total.	Deaths resulting. Falls of ground.	In shafts.	Miscellaneous underground.	At surface.	Total.
Northumberland, Cumberland...	14	5	2	1	22	15	6	2	1	24
Durham, Westm., and N. Yorks	1	2	3	1	7	1	2	3	1	7
East and West Yorkshire	1	2	1	—	4	1	3	1	—	5
Cheshire, Sussex, &c.	1	—	1	—	2	1	—	1	—	2
Derbyshire and Nottingham	1	2	—	—	3	1	2	—	—	3
North Wales, Isle of Man, &c....	6	2	7	4	19	6	2	9	4	21
South Staff. and Worcestershire.	—	—	—	—	—	—	—	—	—	—
Glo'ster, Monm., Somerset, &c...	—	—	1	—	1	—	—	1	—	1
Glamorgan, Pembroke, &c.	1	—	—	1	2	1	—	—	1	2
Cornwall, Devon, &c.	6	5	6	2	19	6	6	13	2	27
East Scotland	2	1	—	—	3	2	1	—	—	3
West Scotland	1	—	—	—	1	1	—	—	—	1
Ireland	1	—	1	—	2	1	—	2	—	3
Total	35	19	22	9	85	36	22	32	9	99

METALLIFEROUS MINES—1883.

Northumberland, Cumberland...	13	1	1	—	15	15	1	1	—	17
Durham, Westm., and N. Yorks.	1	1	1	—	3	1	1	1	—	3
East and West Yorkshire	—	—	—	—	—	—	—	—	—	—
Cheshire, Sussex, &c.	—	—	—	—	—	—	—	—	—	—
Lancashire West	—	—	—	—	—	—	—	—	—	—
North Wales, Isle of Man, &c....	2	3	9	2	16	2	3	10	2	17
South Staff. and Worcestershire.	—	—	—	—	—	—	—	—	—	—
Glo'ster, Monm., Somerset, &c...	—	—	—	—	—	—	—	—	—	—
Glamorgan, Pembroke, &c.	1	1	—	—	2	1	1	—	—	2
Cornwall, Devon, &c.	7	8	6	4	25	9	19	8	4	40
East Scotland	1	1	—	1	3	1	1	—	1	3
West Scotland	—	1	—	—	1	—	1	—	—	1
Ireland	2	—	1	—	3	2	—	1	—	3
Total	27	16	18	7	68	31	27	31	7	86

In connection with the mines classed under the Metalliferous Mines Regulations Acts, 1872 and 1875, there is a summary, by which it appears that in the aggregate, in the year 1883, 50,235 persons were employed in and about the mines of Great Britain and Ireland under these Acts. Of the total number of persons employed in Great Britain 29,675 were underground and 19,315 above ground; and in Ireland 817 underground and 428 above ground. A summary of fatal accidents and lives lost in and about the mines, showing that in the year 1883, at the mines classed under these Acts in Great Britain and Ireland, the fatal accidents amounted to 68 and the deaths to 86. Of these, 79 deaths occurred underground and 7 above ground. From the summaries just given it appears that in the year 1883 there was one fatal accident amongst every 738 persons employed in and about the mines, and one death amongst every 534 persons so employed.

THE WARWICKSHIRE COAL FIELDS.

By the courtesy of the secretary of the North of England Institute of Mining and Mechanical Engineers—Mr. Theo. Wood Bunning—we are enabled to give the subjoined abstract of the paper on this subject by Mr. E. F. Melly to be read before the Institute this (Saturday) evening. The writer begins by stating that this is the smallest coal field in England next to the Forest of Dean, and extends only from Coventry to Tamworth, a distance of 18 miles, the average width of proved workable coal being about 4 miles. The following table is given showing the output for the last two years, the average tonnage drawn per day at the collieries (allowing 250 working days per annum), the number of deaths which have occurred during the same time, and the tons of coal raised per death:—

Year	Collieries in Warwickshire.	Tons raised.	Persons employed. Surface.	Underground.	Total.	Tons raised per man per annum	Total deaths by accident.	Tons of coal raised per death.	Average output, allowing 250 working days per annum.
1881		1,133,419	999	3235	4234	268	4	283,354	252
1882	16	1,066,741	1007	2993	4000	266	26	41,029	266

The paper is illustrated by a map, which shows that the coal measures are but slightly seen on the surface, and the line of outcrop is defined. Sections are also given showing that there are five seams of coal, their boundary being the outcrop on one side and a large fault on the other. The following list of the coal seams which have been, and are now being, worked is given with the sections at some of the collieries working them:—

	Ft.	In.	
Four-foot coal	4	6	not worked any longer.
Two-yard coal	6	0	
Bare coal	2	0	sometimes worked with Two-yard, there being a small parting between them.
Rider coal	4	0	
Ell coal	4	0	
Slate	6	6	
Seven-feet	5	9	
Bench coal	6	0	not worked any longer.

These seams lie at a considerable inclination, dipping chiefly due west, varying from 1 in 5 to 1 in 6, but they appear to be fairly regular, although from the southern to the northern point of the coal field the strata between them gradually thicken out, and they get further and further apart from each other. The coal field appears to be singularly free from faults, except the large ones which practically form its boundary. It is also very free from gas, all the collieries being worked with candles, but there is a great quantity of water which has to be dealt with by nearly every colliery in the district, and this the writer thinks more than balances the advantages accruing from the immunity from gas.

The principal distinctive feature about the Warwickshire coal-seams is the fact that they are one and all very liable to spontaneous combustion, which the writer has no doubt is due, in great measure, to the heating of the pyrites (which exists in large quantities) with the small coal which has been thrown back into the goaf. An opinion has been expressed that the clay under the coal is one of its greatest promoters, and many of the old colliers refuse to hole in it for this reason, preferring to hole in the harder coal as being safer; but the writer is sceptical as to this being the cause, and where the holing is cheaper in it than in the coal, would run the risk and hole in the clay. The conditions most apt to produce an underground fire are stated to be slight dampness and plenty of air, the warm return air being, of course, worse than the intake air. These fires rarely occur near the face, but always at some distance in the goaves, and almost invariably close to the packed side of a wind road by the side of longwall working. It is, therefore, not considered safe to have such wind roads more than 30 to 40 yards in length, but to drive a small coal road with a pillar of 5 yards from the workings, and to hole through into this every 20 to 30 yards. At one of the collieries in this coal field no less than four underground fires, more or less serious, have occurred in 18 months. Particulars are given of the first indications of a fire, and the means taken to prevent its progress.

A description is given of the general aspect of a Warwickshire colliery, and of the shafts, cages, guides, tubs, boilers, and general plant. The consumption of timber in all the seams except the 7 ft. is remarkably low, being at one colliery with which the writer is acquainted only ¾d. per ton for the slate coal and Two-yard. The coals produced are generally in very large lumps, but are not selected in the pit, except in special cases. They are all filled by hand, and as very little slack is made in working the coal, it rarely amounts to more than from 7 to 8 per cent. of the whole output sent to bank. Screens are of comparatively recent introduction. It is usual to handpick the coal from each seam, the best house coals being, as a rule, carefully packed to prevent breakage. A surface plan of one of the collieries in the district is given, showing that three lines of wagons can be loaded from four lines of tubs. These tubs pass along, and the hard and soft qualities are picked out separately for steam and house purposes, while the remainder of the coal, called tub-bottoms, together with what little slack is drawn out of the pit, is taken away to the screens. These screens being at a higher level, it is necessary to have a steam hoist or an inclined gangway working with an endless chain, or some such other device, for raising the tubs to the right height. The tub-bottoms are generally divided into cobbles, nuts, and small, but in some cases are sold altogether as rough slack. The following list, which is a division of the coal at one of the chief collieries, shows what a large number of different kinds of coal are made while working three seams:—

	Average Price. 8s.	9d.
Best Deep Main House Coal	8	0
Best Deep Cobbles	6	6
Screened Cobbles	6	0
Bright's	7	3
Best Two-yard	6	3
Ell Coal Spires Steam Coal	6	3
Hard Two-yard Seam	5	6
Steam Coal	5	0
Nuts	3	6
Rough Slack	1	9
Fine Slack		

The most usual mode of working is that known as "Forewinning," and a description is given of the usual method of laying out the workings at a Warwickshire colliery. The ventilation and haulage systems are also described, as well as the method of getting the coal, and a list of wages paid to various classes of labour employed in the collieries is given; and the paper concludes with some general remarks on the quality of the coals obtained.

Tramway Investments.—A suggestive circular bearing specially upon this class of investment has just been issued by Mr. William Abbott, of Tokenhouse-yard, in which he says:—A feature of the Markets for Stocks and Shares just now, and a very encouraging one in the midst of the prevailing depression, is the improving tendency of all tramway securities. This has been in progress for some week past—in fact, from the date of the issue of the various companies balance-sheets, which indicated, in most instances, a decided advancement on previous years. There is not the least doubt that the practical knowledge of the working of tramways, which has been slowly acquired during the past few years, is now being manifested in their more economic administration; and the inexperience of former times is giving place to an intelligent and systematic management of the business in all departments. In every direction there are now signs of great improvement, and the system of working tramways in this country has become more orderly and methodical, with the satisfactory result that instead of there being so much variableness in the amount of the dividends, there is rather a tendency to a steady rate of improvement. The low price of horse provender during the past few months has, of course, had a favourable effect in diminishing the rate of working expenses, but still greater benefit in this respect will be felt during the current year, as in some cases old contracts for supplying corn and hay had not expired last December, while new contracts will now be made on the basis of the present low range of prices. The earnings, too, of the various companies have shown satisfactory increases since the commencement of the year, which is the more encouraging seeing that we have yet to enjoy the benefits of the Easter traffic, while in 1883 that holiday came in the month of March. Tramway securities at the present time may be divided into three sections—High dividend-paying investments, dividend-paying and improving investments, and non-dividend paying but progressive investments. Of companies of each of these classes Mr. Abbott gives full particulars.

REPORT FROM CORNWALL.

April 10.—It is idle of course to expect any noteworthy change in the attitude of the market either this week or next, and that being so it is highly satisfactory to note the steady and maintained improvement that has taken place in anticipation, as it were, of the Easter interregnum. The belief that an advance in the tin standards is imminent has assumed a very practical shape, and has shown itself in the larger business done and in the better prices attained for various leading mines. At the same time it must be noted that so far there is very little outside speculation. It is those who are, we had almost said professionally associated with mining enterprise, who have by their activity brought about the present improvement, and proved by their actions that their faith is of a very lively character; and these are the people who best know what they are about, and whom in the long run the general public are sure to follow. To all appearance therefore we are really on the eve of what we may fairly anticipate as lively times.

The declaration of a dividend at Wheal Agar is an event which certainly calls for special notice and congratulation here. Fifty years of hope deferred have at length met with the beginning of their reward, and we trust it may be many years ere the mine falls back into its customary state. How many times expectation has been disappointed it is hardly possible to say, for the fates seemed at one time to be persistently against the concern. Few mines probably have had a larger share of peculiarly aggravating breakages; and it cannot be denied that some, at any rate, of these might have been prevented by the exercise of greater foresight. However, it is no good to recall the past, save to express a hope that its lessons may be learnt, and that neither from oversight nor through the exercise of a false economy shall its untoward incidents repeat themselves.

The comic element which occasionally crops out in mining matters has this week been supplied by the coal "mare's nest" discovered at Wheal Agar. No need to wonder at the falling off in the duty of our engines if there are many of them supplied with "coal" at 1s. a ton. Had not the statement been made "on authority" we should have been inclined to suggest that some vessels had been ballasted from a "waste heap," for "coal" at 1s per ton could pay nobody. However, it seems to be really a fact that "once upon a time" 500 tons of what was called "coal" was imported into Cornwall at that extravagantly remunerative figure. The *only* mistake was in imagining that this had happened recently; but then that was rather a serious one. It is very evident that Mr. Hamilton would never have alluded to the fact if he had been told that all this happened 30 years ago; and some responsibility must rest somewhere for allowing him to be so misled.

The attempt to sell Penhalls as a going concern only resulted in the offer of 2000*l.*, which was by no means up to the reasonably anticipated mark.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

April 10.—There has been no change in the iron trades of Derbyshire or the West Riding since last notice. Lead mining in Derbyshire at the present time does not look very bright if one is to judge by the value of lead mines. At a sale held at Eyam a few days ago several lead mines in that district were put up, and only for one of them was a bid made, and that was 100*l.* for a mine and rather more than two acres of land. All the lots were consequently withdrawn. It is said that the Magpie Mine, at Shelton, is about to be reopened by some of the old proprietary. Just now it may be said that a good deal of interest is being centred in the coal trade of the Midland field, owing to the very low price of coal and the notices given at several places of a reduction of wages, consequent upon the unremunerative nature of the trade. At a good many collieries no profit whatever is being made, whilst at not a few the owners are losing money, and of course cannot be expected to continue to do so, seeing that a change for the better is far distant. The actual condition of the trade, however, will be most fully shown by a review of the coal traffic to London by railway in the last month or so.

To commence with, then, it may be said that a comparatively moderate tonnage of coal was sent to London by railway in March, comparing most unfavourably with the quantity sent in the corresponding month of last year, the difference being 27,015 tons in favour of the latter period. But far more significant than the tonnage carried in the two months is the difference that has taken place in the prices, plainly showing that should the present state of the mines continue as regards the coal trade, colliery owners, to prevent a serious loss, will have to resort to some means for reducing the cost of production. The present cost of raising a ton of coal is fully as high as what it was at the same period of last year; but it is very different as regards the price obtainable. In March, 1883, the price of Wallsends, delivered in London was 27s. per ton, whilst now it is only 23s. per ton. Silkstone coal is now from 2s. to 3s. per ton lower than it was this time last year, whilst all other qualities are correspondingly lower. But prices are likely to come down still lower when the summer months are reached, greatly to the disadvantage of the inland as compared with the sea-borne coal, owing to the difference in the rate. Freights from Newcastle to the Thames have lately been below 4s. per ton, whilst the railway rate, say from any port of the West Riding, is 7s. 2d. per ton, exclusive of City dues, truck hire, and dross. The colliery owners of South Yorkshire, it may be said, have long desired to have the fine steam coal put on to the Thames, and placed in a position to compete with that sent by sea from Newcastle; but the existing railway rate makes this impossible. At present, in addition to the 7s. 2d. for the carriage alone, there is the truck hire, 9d.; City dues, 1s. 1d.; and dross, 2d., bringing the cost up to 9s. 2d. per ton to the London railway; but if the coal is sent to any of the docks there is a further charge of 2s. 6d. for lighterage, bringing the cost for putting on board a steam vessel up to 11s. 8d. per ton. Coal so heavily handicapped stands no chance whatever with that carried by sea direct from the North of England at 4s. per ton exclusive of lighterage. The colliery owners in South Yorkshire are, therefore, looking forward with a good deal of interest to the completion of the Hull and Barnsley line, believing that it will be of material benefit to them, and be the means of making their steam coal known and appreciated on the Thames. It is expected that the charge for the carriage of coal from the Barnsley district by the new line to Hull will not exceed 2s. 6d. per ton, and allowing 2s. 6d. per ton from the Humber to the Thames, making the total cost about 5s., thus effecting a great saving in comparison with the through route by railway. It is also expected that the rates charged by the Hull and Barnsley Company, will lead to a reduction by the older companies. There should be no great difficulty in this respect, for Mr. Finellay, the Manager of the London and North-Western Railway Company, in his evidence before a Select Committee of the House of Commons stated that the cost for carrying in owners' wagons, including the back haulage of the empty trucks, was ·25 of a penny per mile for distances of about 200 miles. Some of the companies, however, charge ½d. per ton per mile for that distance or rather less, so that there is a good margin on which to make a reduction. The railway rate, indeed, is a most important factor as regards the exportation of coal from the mines to the home markets. This is shown in the case of the Midland Company, whose line being directly connected with the Derbyshire and Nottinghamshire coalfields, and being near

to the Metropolis, gives a lower rate than those railways dependent upon those distant districts, such as the West Riding, South Wales, Lancashire, &c.

From Derbyshire there was sent last month no less than 140,000 tons of coal from 13 collieries in Derbyshire, Clay Cross taking the lead with 19,000 tons, Langley Mill standing next with 16,200 tons, and Eckington following with 15,000 tons, Blackwell 15,900 tons, and Grassmoor 14,700 tons. The Midland itself took 11,400 tons from Clay Cross, 9400 tons from Grassmoor, and 4000 tons from Staveley. The Midland passing northward during last month took 8000 tons from Newton, Chambers and Co., whose pits are in the South Yorkshire district, 900 tons from North Bretton, and 1300 tons from Aldwerke Main. From the West Riding the Great Northern took from Durfield Main 2300 tons, New Sharlstone 3900 tons, Rockingham 3800 tons, Hayland 1200 tons, Wharncliffe Silkstone 1600 tons, and Dodworth Silkstone 1100 tons. The Great Eastern took from Mitchells Main 1500 tons, and a like quantity from Sharlstone

CHESTERFIELD AND DERBYSHIRE INSTITUTE OF MINING, CIVIL, AND MECHANICAL ENGINEERS.—At the meeting on April 19 there will be open for discussion Mr. Henry Fisher's paper "On a System of Endless Rope Haulage in use at Clifton Colliery, Nottingham, with remarks on various Clutch Gears in Use, and a description of a New Frictional Clutch for Hauling-Engines and other Machinery." The paper by Mr. A. H. Stokes "On Colliery Explosions" will be taken as read.

REPORT FROM LANCASHIRE.

April 10.—The condition of the Coal Trade in this district remains much the same as reported last week. Business all through is very dull, and where collieries are kept running simply to their orders they are not, as a rule, making more than three and a-half to four days a-week, whilst less time is being worked in many cases. The better qualities of round coal move off fairly well for house fire purposes, considering the exceptional openness of the season, and at some of the collieries in the Manchester district orders are reported to have been coming forward more freely since the commencement of the month. For the best qualities prices are well maintained, best Wigan Arley being still quoted by the leading firms at 9s. 6d. per ton at the pit's mouth, but for quantities 9s. per ton represents more nearly the average figure. Second qualities of house coal, such as the common Arley and Pemberton Four-feet, average 7s., and common qualities of house coal about 6s. per ton. Common round coals for steam and forge purposes are bad to sell, and a good deal of this class of fuel accumulates under load at the collieries, and stocks are forced for sale in the market at very low prices. The average price at the pit's mouth is about 5s. 6d. per ton, but less than this is being taken in some cases for quantities. For engine fuel there is a continued good demand, at fully late rates, burgy at the pit's mouth averaging 4s. 6d. to 5s.; best slack, 4s. to 4s. 3d.; and good ordinary qualities, 3s. 3d. to 3s. 6d. per ton.

For shipment there is a fairly good demand, but the supplies offering in the market are so much in excess of requirements that orders are competed for at very low figures. Good ordinary Lancashire steam coal, delivered at the High Level, Liverpool, or the Garston Docks, can be got readily at 7s. 3d., and seconds house coal at about 8s. 3d per ton. For coke there is only a poor demand, but quoted rates are maintained without material alteration; best local cokes at the ovens averaging 10s. to 12s., and common qualities about 8s. per ton. The question of a reduction of miners wages has recently been several times under consideration in the West Lancashire district, but nothing has yet been definitely decided upon.

The Iron Trade, although not in an absolutely depressed condition, continues without animation, and no one seems able to look forward with confidence to any legitimate source from which improvement can be expected. Considering that it is the commencement of the quarter, there has been only a very small business doing during the past week, and prices, if anything, are easier. Lancashire pig-iron makers have given way about 1s. per ton upon the full rates they were asking last week, forge and foundry qualities, delivered equal to Manchester, being now quoted at 43s. 6d. to 44s., less 2½. At the lower prices a few sales have been made; but the reduction does not seem to have had any very material effect in bringing forward new business. For district and outside brands makers' quotations are without material change; but there is more disposition to sell forward with iron to be got through second hands at under current rates. In the finished iron trade business during the past week has practically been held in suspense, pending the Quarterly Meetings. Nominally quoted rates have been unchanged; but merchants have been open to undersell, and for ordinary Lancashire and North Staffordshire bars the average price is about 5*l.* 15s. to 5*l.* 17s. 6d. per ton, delivered into the Manchester district. Ordinary pipe castings are being offered for delivery into this district at extremely low prices, and bored, turned, and lined they can be bought at from 4*l.* 11s to 4*l.* 12s. 6d. per ton. Machinists in this district are busier than they were a month or so back, and makers of locomotives and engineers' tools are also well employed; but generally the engineering branches of trade are getting quieter.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

April 10.—Yesterday and to-day the Quarterly Meetings have taken place. The attendances have been large, but the business transacted has been unsatisfactory alike in character and extent. Yesterday in Wolverhampton and to-day in Birmingham crucial prices were declared unchanged. Marked bars were re-declared at 8*l.* 2s. 6d. to 7*l.* 10s.—prices which were fixed 15 months ago—and all-mine pigs were re-declared at 80s. for cold-blast, and 60s. for hot-blast. Native part-mine pigs were 45s., and cinder 40s. to 37s. 6d. Northampton pigs were 43s. upwards, and Derbyshires 44s. upwards. Second-class bars were 6*l.* 15s. to 6*l.* 10s., and common 6*l.* 5s. to 6*l.* Sheets for ordinary merchant and galvanising purposes were 7*l.* to 7*l.* 10s. for singles, 7*l.* 10s. upwards for doubles, and 8*l.* 10s. for lattens. Coal was slow of sale, whether manufacturing or house sorts are alluded to. Owners were unable to obtain any better prices. Furnace coal was 9s. 6d. to 10s.; mill coal, 6s. to 7s.; and forge coal 5s. 6d. to 6s., according to the locality where mined.

The Iron Trade Wages Board have been summoned to meet in Wolverhampton on Tuesday next to consider the notice handed in by the masters for a reduction of wages. The probability is that, as on previous occasions, a resolution will be agreed to by both sides referring the matter to arbitration. Meanwhile small meetings of the men have been held in various parts of the district protesting against any drop.

The Coal Trade Wages' Board are not yet in a position to officially consider the notice which the masters in this industry likewise have given for an alteration in the present wages. Is is understood that Mr. Alfred Young, barrister, has declined to accept the vacant post of umpire to the board, and the masters are now offering the post in another quarter. Until an appointment has been made nothing definite can be done in the wages' question. The men continue somewhat divided as to the wisdom of upholding the board. The majority, however, are decidedly in favour of maintaining it. A strong meeting at Tipton has this week passed resolutions in this spirit.

The work of the Mines Drainage Commissioners during the month appears to have been considerable. Mr. E. Terry, engineer of drainage works, reported, at a meeting of the Commissioners at Wolverhampton, on Wednesday, that the water had been lowered at every pumping station. The lifts at Stow Heath and Portobello had been lowered 9 ft.: 130 yards of levels had been driven below the bottom coal from the moat towards Gospel Oak, and 90 yards from Gospel Oak ore-pit in the direction of Bradley. Mr. E. B. Marten reported that the surface works had been pushed forward during the past two months. The sewage drained by the fixed surface-pumps had been kept empty and had also drawn down other distant low ; round to a greater extent than at any former time. The permanent work at several important points had also been considerably advanced.

It is to be hoped that there are few collieries where such a practice obtains as was revealed on Tuesday at Bursiem. The Government Inspector of that district found that at the Hem Heath Colliery, Chesterton, from Jan. 14 to Feb. 29 the daily examinations of the workings required to be made with the safety-lamp were made with naked lights. On the morning of the latter date there was found to be a setting about 10 yards long in a red mine seam. No brattice was put up, and naturally enough two men descending later on with naked lights were both injured by an explosion. Such a state of things deserves in the colliery interest to be visited severely; yet the total fines upon the certificated manager amounted to only 10*l.*

TRADE OF THE TYNE AND WEAR.

April 10.—There is little change to report in connection with the Coal Trade here, although complaints of short work are still made in some localities, that is the bulk of the trade still shows that a large amount of coal is worked in the district. The shipments of coal and coke at Tyne Dock and other main shipping stations in the Tyne and Wear were fair for the past week. At Tyne Dock the total amounted to 91,042 tons, a decrease of 8554 tons in the quantity for the corresponding week of last year. We learn from Brown's Export List that the oversea shipments from the north-east ports for last month were 547,531 tons, against 453,431 tons in March, 1883, showing an increase of 94,100 tons. The trades are certainly in a better position than most other trades in the district, but the prices received for the produce continues low, and there is little chance of profit at present in the great majority of cases.

A serious riot has occurred at the Thornly—the "Original Hartlepool"—Collieries, near Sunderland. The collieries are old, and very extensive, the first shafts having been sunk about the year 1840. About three years ago the entire works passed into the hands of a London gentleman, he having advanced a large sum in mortgage on the works. On Friday, the usual pay-day, the wages were not paid to the workmen owing to some dispute, and and on Saturday they assembled in great force, evidently bent on mischief. A body of fifty policemen were, therefore, got together, and the mob attacked the police by throwing stones, but they were charged and dispersed by the police. Three Union agents from Durham were present, and they exerted themselves very much, and kept the men quiet after the police charge. At four o'clock on Saturday Mr. Ramsay, the manager, arrived from Sunderland, where he had been endeavouring to raise funds to pay the wages. He had not, however, raised sufficient, and could only offer the men 5s. in 1*l.* This the men refused to accept, and Mr. Ramsay promised, if possible, to settle with them on Monday or Tuesday. A large amount of excellent house and other coals is raised at these works, but of late the price realised has been very small, and this has got the owner, who is much respected, into temporary difficulties. A few days ago he offered privately to convert the concern into a Limited Liability Company; and, as only a small capital is required from the public, it being intended to sink one of the shafts to a lower seam, it is hoped that this arrangement will be carried out. These famous old works were managed for many years by Mr. Philip Cooper, a well known practical viewer of great ability, and he only returned a few months ago, owing to failing health, and the management was undertaken by Mr. Ramsay; the latter gentleman served his apprenticeship with the late Mr. T. E. Forster, and since that time he has had considerable practical experience in the management of collieries in Durham, and also in other districts.

On Friday week some interesting experiments were made at the Ryhope Colliery, near Sunderland, for the purpose of testing a safety-lamp, the joint invention of Mr. Routledge, the resident viewer at that important colliery, and Mr. Johnson, agent. There are so many safety-lamps that it really appears to be a difficult task to produce one with any remarkably novel feature; this has, however, we believe, been effected in this case. For the purposes of the experiments a wooden box was provided, and along this box a current of air was carried at any required velocity up to 30 ft. per second. A mixture of gas and air was also carried along for the purpose of testing the working of the lamp. The Davy lamp and some others, it is well known, explode the external air when subjected to an explosive mixture, at the rate of from 10 to 12 ft. per second. A number of lamps were tested here (at Ryhope), and most of them exploded the current when subjected to an explosive mixture at a certain velocity, but the lamp of Routledge and Co. withstood the test up to a velocity of 30 ft. per second. This is no doubt due to the novel construction of the lamp, which resembles the Stephenson lamp in some respects, but in the latter lamp the air which supplies the flame passes through a perforated plate at the bottom of the lamp, while in the Routledge lamp the air passes from the top of the lamp downwards between the glass and the wire gauze, certainly a very ingenious arrangement, which has important effects. First it has the effect of keeping the glass quite cool, and no doubt it also enables the lamp to withstand the effect of a rapid current of inflammable air. We would observe, however, that experiments made with gas which is manufactured is not quite satisfactory; this refined gas varies very considerably in its nature from the carburetted hydrogen met with as given off in coal mines.

We are also bound to state that in our long experience, extending over 40 years in mines, with the Davy, Clanny, and Stephenson lamps we never met with an explosion from the use of these lamps. Of late years the Davy lamp has been enclosed in a tin case with a glass front, and it is still extensively used in the Durham collieries, as it is no doubt the most portable lamp, and is therefore mainly used by putters, drawers, &c., who have to move about constantly in the roads. The Stephenson and Clanny lamps when immersed in an explosive mixture in a mine are always extinguished by the mixture. As to explosive currents in these mines, it occurs very rarely indeed that an exposive current is met with, small accumulations of explosive mixtures are met with in the bord faces in rise workings and at the edges of goaves, but explosive currents moving at speed are very rare occurrences indeed, and certainly an explosive current moving at the rate of 10 ft. per second is almost out of the range of mining experience. However, if the lamp of Routledge and Co. is found in actual practical experience in the mines to be equal in portability and every other respect to the well-tried lamps we have named, the fact that it will bear safely an inflammable current moving at the rate of 30 ft. per second must prove an additional recommendation for the use of the lamp.

The Pig-Iron Trade has continued quiet during the week, the demand has been slack, and, though there has been no essential change in the general conditions, a shade less firmness has been the rule. The ironmasters' returns, which were sent out on Wednesday last, were disappointing, as they did not show anything like the reduction anticipated from the blowing out of so many blast-furnaces. A reduction of only 5207 tons in stocks appeared. The reduction in make since the furnaces have been blown-out does not equal expectations. As compared with January, a month of the same length as March, the production of Cleveland iron has only decreased 19,000 tons, whilst the production of spiegel basic and hematite iron has been increased by nearly 6000 tons. The results of the policy of restriction are not deemed satisfactory by many well versed in the trade. Prices are scarcely so firm, but makers have not given way much; they still adhere to 37s. 6d. for No. 3 iron; No. 4 forge is 36s. The Scotch market has been weak. The finished iron trade in the North of England is also getting worse. On the Tees, Tyne, and Wear there is increased slackness, and not unfrequent stoppages. At Sunderland many thousands of hands formerly employed in the iron and shipbuilding establishments are out of employment. The ship-plates and angle trades are especially bad; bars are also less in price, but the demand is not stimulated. Orders for both iron and steel are eagerly competed for. Bars are 5*l.* 2s. 6d., ship-plates, 5*l.* Messrs. Connal's stock of warrants is 60,427 tons—a decrease of 100 tons on the week.

A meeting of the Board of Conciliation and Arbitration in the manufactured iron trade in the North of England was held on Saturday last, in Newcastle, for the purpose of arbitrating in the claim of the employers for a reduction of 1s. per ton on puddling and 10 per cent. on all other forge and mill wages, the decision of the arbitrator to regulate wages over a period of three months; Dr. R. S. Watson is arbitrator. Lengthy statements were put in by the masters on their side, and by the men on the opposite side. This arbitration on the claim of the employers is, perhaps the most momentous that has occurred in that great trade. The demand for all classes of iron is dull, prices are very low, and wages are about the lowest ever known. Trade has partially forsaken the makers, and the two parties to the arbitration have different views as to the remedies. The employers think that lower prices would be more likely to add to the demand; the workmen think that "no reduction in the price of iron or wages can possibly enable employers to stimulate shipbuilding." The speakers for the employers were able to show that prices are lower and are still falling, and that it is with the utmost difficulty that orders can be obtained; and to this the men reply that the rate of wages ought not to fall to starvation point. It is evident that the use of steel in shipbuilding and bridgebuilding is reducing the demand for iron-plates. This fact and the sudden collapse of shipbuilding, to a great extent, accounts for the fact that there are hundreds of puddling furnaces idle and many workmen.

A revival in the Shipbuilding Trade can only occur when there is better and more remunerative employment for the ships now afloat, and this change is going on, but only at a very slow rate. But the fact must not be lost sight of that the change from iron to steel in these trades appears pretty certain to proceed, and with accelerated speed. The first steel ship built at Palmers' Jarrow Works was launched only a short time ago. At Elswick the shipbuilding works of the Armstrong Mitchell Company are proceeding, but alongside large steelworks are also being erected, where plates, angles, and all the necessary materials for shipbuilding will be produced. Steel plates are also now made at Consett, and they will no doubt be produced at all the works where iron-plates are now made shortly. There is a very large stock of ore held at Elswick at present; this ore has been imported from Spain. The judgment of Dr. Watson will be anxiously looked for by the whole trade; if it be a partial reduction it is to be hoped that it will aid in restoring fuller trade.

The Quarterly Meeting of the Iron Trade was held at Middlesborough on Tuesday, and there was a good gathering of both local men and strangers from Scotland, Manchester, London, and the Birmingham and Sheffield districts. Business was very quiet, and prices were weaker but little change. There is a good demand for Germany and the Baltic. No particular change in coal or coke.

TRADE IN SOUTH WALES.

April 10.—The approach of the Easter holidays is viewed with much more equanimity than usual by merchants, as arrears are not so formidable as usual. The new crane erected by Sir William Armstrong at the Cardiff Docks, has been tested, and has fully answered expectations. The multiplication of these cranes will immensely help loading facilities, as coal can be tipped from them at the rate of 200 tons per hour. The Isle de Luzon, a vessel of 3000 tons, was loaded by means of this crane in about 15 hours. The old and slower process will now give way to this more rapid shipment, and that will enable merchants to ship double the present quantity, or equal to about 14,000,000 tons per annum. The moveable crane is pronounced to be a great success. The amount of coal sent away from Cardiff last week, although a falling off from the previous week was the fair quantity of 126,857 tons foreign and 21,683 coastwise; Newport, 33,707 tons foreign and 16,343 coastwise; Swansea, 19,420 tons foreign and about 10,000 coastwise. Small coal is in weak demand. Patent fuel for the moment does not show much activity, and house coal, owing to the fine weather, lacks animation. Prices of steam coal range from 10s. 3d. to 12s. 3d., and house coal from 9s. to 10s. In the Forest of Dean domestic coal has been reduced 6d. per ton, while the wage rate has been reduced 2½ per cent. The port of Neath is showing excellent results in the matter of coal shipments. The new dock will be completed in October next.

The Steel and Iron Industries of South Wales remain under a cloud as regards prices, like the rest of the country. Newport sent away last week two parcels—one to New York of 1250 tons, and another to Ibrail of 1500 tons. Cardiff only sent away one small parcel of 163 tons. Iron ore still arrives in large quantities, helping thus to maintain low prices. The amount received in Cardiff last week from Bilbao was 15,930 tons, and 2223 from other places; Newport landed 8047 tons from Bilbao, and 3350 tons from other places.

The Tin-Plate Trade maintains a healthy position, as all the works open are in full swing, and there is a probability of the Llangennech Works being restarted. Prices of IC cokes are quoted at 15s. 6d. to 16s., and wasters at 14s. 3d. to 14s. 6d. Steel-coated plates are in great request.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

April 10.—An old history of the ancient Britons states that they had plenty of tin and lead, but bought their copper and gold from the Phœnecians, who traded with them. This statement opens several questions—1. It has been inferred from the quantity of gold ornaments dug up in Wales that formerly the country was rich in that metal; the statement shows it was obtained from abroad.—2. It shows that, apart from tin, the natives had a knowledge of lead mining, which fact is also confirmed by the stone tools formerly found in Cardiganshire, and the ancient smelting hearths seen in Flintshire. This fact should be borne in mind, because there is too much readiness to assign all this ancient mining to the Romans. They were no doubt keen after minerals, but we can hardly expect that they should come to this country and all at once find mines and minerals in out of the way places. The truth is they followed in the wake of the Britons, and any further light thrown upon this industry of an ancient people would be interesting. For the present the industry lies under a heavy cloud, but it remains to be seen whether by lower royalties, combined management, improved machinery, lower freights, the cessation of heavy prices paid for the privilege of exploring mineral properties, and the concentration of operations on the best properties, the industry may not yet survive. In mining there must be explorations and adventures, but speculative explorations should be within reasonable limits. The great industry of North Wales at the present time is that of slate. During the year 1882 Carnarvonshire from 19 quarries produced 280,716 tons, of the value at the quarries of 681,607*l.*, giving employment to 8960 persons. Merionethshire, from 15 quarries, produced 166,601 tons, of the value of 505,239*l.*, giving employment to 5086 persons. Denbighshire, from two quarries, produced 3434 tons, of the value of 8515*l.*, giving employment to 160 persons. Montgomeryshire, from two quarries, yielded 940 tons, of the value of 2724*l.*, giving employment to 51 persons. Out of the 504,780 tons of slate produced in that year in the whole of the British Islands 451,691 tons were obtained in North Wales, the industry giving employment to nearly 15,000 persons, and if we multiply this number by 4 we have approximately 60,000 persons in North Wales supported by slate quarrying.

In January last from the port of Carnarvon 1554 tons of slate were sent by sea and 1384 tons by rail. In railway matters the Principality is progressing. The Whitland and Cardigan extension is being pushed forward from Crymmych Arms, and already the mail service from the coast has been transferred to that route from that *via* Llandyssul. The Golden Valley line, which is to unite Central Wales with Bristol is likely to pass without opposition. The Anglesea Central, which will open a new route from Carnarvon and the South to Holyhead is unanimously supported locally. Although showing a decrease still of 232*l.* on the receipts of the Cambrian Railway for the half-year, the week ending March 30 showed the important increase of 255*l.* over the corresponding week of the previous year. The Much Wenlock and Severn Junction line pays a dividend of 5 per cent. on the Preference shares. The colliers on Vauxhall Colliery, Ruabon, have now been added to those on strike.

An important case was decided in the Divisional Court last week. The London and North Western Railway Company sought in November last to charge wharfage for the arrival and delivery of a quantity of slack at Hanwood Station to a customer of Mr. J. P. Smith at Shrewsbury. Mr. Smith took the case into the Shrewsbury County Court, where he was nonsuited by the Judge, Mr. Arundel Rogers. He appealed, and the Divisional Court decided in his favour, holding that a railway company has no right to charge wharfage until a sufficient time for the removal or delivery of the goods carried has elapsed. There is some amount of stagnation in the pig-iron trade

probably caused by uncertainty as to future prices, but the manufacturing trade, of which iron is the base, are pretty well employed.

In the Potteries the Earthenware Trade is bad, the works being only about half employed. For the quarter ended March 14,667 packages of earthenware were sent to America, as compared with 25,235 packages in the corresponding quarter of 1883. Indeed, the whole of the Home, Colonial, and Foreign markets are dull.

SCOTCH PIG-IRON WARRANT MARKET.

Mr. W. WILSON (Glasgow, April 10) writes:—The warrant market has been quiet, and the price is rather lower than a week ago. A moderate business is doing. Quietness prevails in other departments of the trade. Supply and demand are now, however, in more healthy relations, and this should give some steadiness to prices. Shipments are fair for the week, but are under the figures of last year. There is no change in the number of furnaces blowing. 644 tons were taken out of store here last week, while at Middlesborough no change was made. Business was done during the past week at the following prompt cash prices:—

Thursday, April 3.	Friday, April 4.	Monday, April 7.
No Market.	... 42/1½, 42/1, 42/1½, 42/1	... 42/1, 42/0½, 42/1
Tuesday, April 8.	Wednesday, April 9.	Thursday, April 10.
42/1½, 42/3, 42/2½	... 42/2½, 42/1½, 42/2	... 42/2, 42/3, 42/2½, 42/3

	1884.	1883.	1882.	1881.
Price of Scotch Warrants, April 7	42/1 ...	46/10½ ...	48/6 ...	48/1
Furnaces in blast in Scotland do. ...	93 ...	110 ...	107 ...	121
Iron in store at this date	594,084 ...	583,747 ...	628,883 ...	543,663
Shipments of Scotch pig-iron for week ending April 5	11,457 ...	12,328 ...	12,662 ...	10,649
Do. since beginning of year.....	139,757 ...	150,229 ...	157,939 ...	131,956
Price of Middlesbro', No. 3, April 7	37/ ...	40/ ...	43/6 ...	38/3
Furnaces in blast Middlesbro' dist.	102 ...	120 ...	119 ...	120
Middlesbro' Iron Imported at Grangemouth, week ending April 5	4,055 ...	5,839 ...	3,000 ...	3,934
Do. do. since beginning of year ...	75,865 ...	67,570 ...	78,571 ...	79,313

WELDABLE STEEL.—In the manufacture of steel such as Bessemer steel, Siemens-Martin steel, or basic steel, an improvement has been patented by Mr. WILLIAM NAYLOR, of Penistone, the object of which is to produce by these and similar processes a specially soft weldable steel suitable for the backs of steel faced armour-plates as also for ships-plates, boiler-plates, castings, and other articles, and to produce a superior substitute for the best malleable iron. He thus explains the process in making soft steel according to his invention. First, he takes the molten cast-iron metal and runs it into a Bessemer or other converter or other suitable vessel having an acid or basic lining where such impurities are removed as may be possible and desirable by blowing as is usual in such vessels or in other convenient manner such as the Siemens or other furnace, so that such impurities are removed at this initial stage of the process. He then adds to this molten metal so partly purified the following ingredients by placing them in a suitable ladle or other vessel, and then pouring the molten metal aforesaid upon them. Take a 4-ton blow of metal. He adds oxide of manganese from ¾ cwts. to 2 cwts., that is, he takes of the highest and lowest quality at present known in the market, but he prefers the highest quality commonly known as per oxide, and such as would be supplied by E. W. Crebbins and Co., of Liverpool, the quantity being regulated somewhat according to the nature of the iron used with a suitable proportion of speigeleisen or ferro-manganese, say, 3 cwts. or other equivalent, but he prefers the ferro-manganese which will be varied in proportion according to the exact quality or nature of the plates required, thus producing at a cheap rate a soft weldable steel suitable for forgings, plates, castings, and other articles.

MODERN PROGRESS IN MINE ENGINEERING—No. VI.

BY H. BRAMALL, M. INST. C. E.*

The time remaining at my disposal will only permit the very briefest review of the modern improvements which have been effected in the methods employed in bringing to a marketable condition the coal or ore produced from the mine. The collier does not now usually separate the coal from the slack in the mine, but sends it altogether to bank where it is screened and picked, to facilitate which operations various ingenious contrivances have been introduced, such as revolving and spiral screens and tables, moving bars, and travelling bands on which the coal is carried past the pickers, while bands and archimedian screws are used to transport the slack. For all ordinary cases probably nothing excels the plain flat screen with steel bars if care is taken to design it of form and pitch to suit the particular circumstances. Iron has been largely introduced into the construction of heapsteads and screens, in some cases with manifest advantage. Where the slack is of suitable quality for conversion into coke it is first washed, the simplest apparatus being the plain long trough, and the washers of Evrard, Sheppard, and some others are in considerable use, and have proved both effective and economical. Elaborate plant has been erected for cleaning slack by the dry or wind process, but the results can hardly be looked upon as quite satisfactory. New forms of coke-ovens have been introduced by Coppée and others which possess certain advantages, though the old beehive form is in continued favour by reason of the superior quality of coke produced from it. Several methods are in use by which the recovery of the residual products is more or less successfully accomplished, and the waste gases as before mentioned are utilised in the generation of steam. On the Continent refuse small coal is ground and mixed with coal tar, pitch, or gluten, and compressed into briquettes, which are used in the French navy and for export; and the industry has there grown to very important dimensions. Some of this patent fuel is produced in this country, but the manufacture has never seemed to attract the attention which it merits.

The mechanical preparation or dressing of mineral ores has in modern times been considerably improved, more particularly on the Continent and in America, and the increasing keenness of competition is compelling a closer attention to this matter in this country with a view to effect greater economy. The preliminary breaking, picking, and sorting to which the stuff is first subjected is now in many mines materially aided by the use of Blake crushers. Why should not a very much extended use be made of these machines? The cost of this preliminary breaking by machine is about half the cost by hand, besides which the efficiency of the stamps or rolls to which the stuff is next passed is materially (from 20 to 40 per cent.) increased. Not much alteration has been made in the form of the gravity stamps commonly used in this country; they remain much what they were upwards of 300 years ago, and in some cases so ill-constructed are they that not nearly the efficiency of which they are capable is got out of them. The Americans have greatly modified and improved the common stamps by making the lifters of round bar-iron, and the cam shaft of wrought-iron with steel cams, which communicate to the heads a revolving motion at the moment of their release; the heads are made much heavier, and the lift lower than is usual with us, and the coffers are of iron, and carry dies, while the frames are also in some cases of wrought-iron. These improvements have been adopted by the best makers here in machinery made for export. But gravity stamps at the best are costly and somewhat cumbrous appliances, and can get through a comparatively small amount of work, the average in Cornwall not being more than 1 ton per head per 24 hours, and in America a little over 2 tons. The desire for something more efficient led to the introduction of the pneumatic stamp of Mr. Husband in which, by the use of the air spring, the speed and weight of the blow is so increased that 20 tons is stamped by one head in 24 hours, and the cost of a given amount of work is reduced about 40 per cent. Other recent stamps are the Elephant and the American spring beam. The application of steam direct to lift the stamp head, simple as it seems at first glance, is a by no means easy matter, and stamps so worked will necessarily be expensive. But at Lake Superior Copper Mines the Ball direct-acting steam stamp is in much favour, and is stated to crush (with one head of over 2 tons) about 120 tons of rock in 24 hours through grates having ½-in. diameter holes. It would be utterly impossible within the limits of time at our disposal to give any adequate idea of the ingenuity and fertility of resource displayed in recent years in the application of machinery to the treatment of the ore after leaving the stamps or crushers. Merely to enumerate the various pulverisers, disintegrators, jiggers, concentrators, dressers, &c., now in use, would occupy considerable time, and such a cursory glance would serve little useful purpose; suffice it to say that at no previous period has dressing been better understood or more carefully and efficiently performed, and that in most mining districts there is a great deal of activity displayed in the devising of new methods or improvement of those processes already well known, it being felt and generally admitted that although much has been done there still remains much to do before the art may be called perfected.

And now I must bring to a close this very brief review in which I have endeavoured to place before you, not only a retrospect of the past but an epitome of the present state of the art of mining, and have had occasion to point out directions in which tentative efforts after improvement are being made, although they have as yet, in many instances, scarcely got beyond the region of successful experiment. I have to thank you for the patience with which you have listened to me, and to remind you that the two cardinal points of the greatest safety for the employees, and the greatest economy in the working are those which, in his search after improvements, ought to be kept steadily in view by every mining engineer.

* President's Annual Address to Liverpool Engineering Society.

STUDENT'S HANDBOOK OF PHYSICAL GEOLOGY.

The geological textbooks of the late Prof. J. Beete Jukes, and his relative Mr. A. J. Jukes-Browne, have always enjoyed a high reputation among students, and the new volume which the latter gentleman has just issued—"The Student's Handbook of Physical Geology." By A. J. JUKES-BROWNE, B.A., F.G.S,, of the Geological Survey of England and Wales. London: George Bell and Sons, York-street, Covent Garden—is certainly as attractive and instructive as any of the previous volumes. The design of all the works of the series appears to give an outline which, while conveying a complete general idea of the whole subject dealt with, is of such form and character that it is easy to fill in the details, and extend the knowledge to be derived from experience and research whenever and however the opportunities for doing so may present themselves. The book is well calculated to take the place of Jukes' Student's Manual, which has been of immense utility to many who now occupy a prominent position in connection with the science, whilst it has the advantage of being less expensive. Novelty in a textbook, except as regards fresh or more detailed observations is of course undesirable; but for systematic arrangement, and the careful recording of ascertained facts it is evident that Mr. Jukes-Browne has spared no pains to make the volume acceptable as a reliable guide to the branches of study with which it deals.

Geology, it is remarked, is not so much one separate science as the application of all the physical sciences to the examination and elucidation of the structure of the earth The truth of the large and comprehensive view of geology taken by Prof. Jukes, is shown, it is remarked, by the very fact of its late appearance in the world of science. The crude ideas regarding the structure and history of the earth and nature of fossils which were prevalent in the 17th and 18th centuries cannot be dignified by the name of geology. The geognosy taught by Werner in the latter part of the 18th century was a little more than a special branch of mineralogy, and Desmarest, though an opponent of Werner's views regarding the origin of rocks, treated of geology under the head of physical geography. It was not, indeed, until much progress had been made in all the physical sciences that geology could possess any solid foundation or any real scientific status. Mr. Jukes-Browne defines geology as the application of the knowledge gained by the study of the existing state of things to the elucidation of the past history of the earth. The geologist takes the information gained by others regarding the operations that are now in action on the surface of the globe, and uses this knowledge to explain the results of the operations which have taken place in the past. In this way he is enabled to explain the manner in which the various rocks have been formed and the processes by which they have acquired their distinctive character and their relative positions.

That Mr. Jukes-Browne has carefully considered the best method what kind of knowledge is required, and which is the preferable method of conveying the necessary instruction cannot be doubted. After explaining the first principles, an acquaintance with which ought to form the groundwork or introduction to the study of those subjects which are the more special province of geological science, he continues, that it seems the most natural and logical treatment of the subject in the first place to describe the geological processes which can be seen at work in various parts of the world, and to show the student how these operations will explain the facts observable in the crust of the earth, and how they will account for the diversified features which its surface presents. By these steps we can proceed to the history of the earth since it became a habitable globe, as interpreted by means of the observations and deductions previously arrived at. In the present volume he treats of dynamical geology, or the actual results produced by the geological agencies now in operation; of structural geology, or the study of rocks and rock masses without reference to the geological time of their production (subdividing this into two sections—lithology and petrology); and of physiography, or an explanation of the origin of hills and valleys, cliffs, escarpments, and mountains; whilst palæontology and historical geology are reserved for a future volume.

From Mr. Jukes-Browne's agreeable style the volume can be studied by those least disposed to undertake the labour of research and investigation, and they may rest assured that when the book has been carefully gone through they will have obtained such an insight into the subject that further study will be pleasurable and willingly undertaken. The work is well illustrated, and as in branches of the subject which have not come within his immediate province he has been fortunate enough to have had the assistance of some of the best authorities upon those branches it is difficult to see how a more reliable work could have been produced.

THE NICKEL BELT OF BAJA CALIFORNIA NEWLY DISCOVERED.

Some 14 years ago, just after the discovery of gold at Julian, gold was discovered near the Real del Castillo, Baja, California. For several years much money was, says the San Diego Sun, taken out of the placers about the same time several veins of quartz was found, which were very rich in gold. Just how much money has ever been taken out is not, and never will be known, as no record of it has been kept. Soon after the discovery of the gold quartz veins some very rich silver float was found just east of the gold belt. Five years ago a few more pieces of silver-bearing rock was found near the same place, which assayed very high. About the same time a vein of rock was found near the town, which after being melted in a furnace yielded large buttons of white metal, having the appearance of silver, but upon testing it it was found to be something else. The superintendent of the Old Tunnel Company at once pronounced it to be nickel, and took steps to have it tested for that metal, which it proved to be. Since that time he has been constantly at work testing the ores, having them tested, and has sent and obtained samples of nickel ores from various parts of the world, so as to compare them with the ores of Baja California. Several months since Prof. Blair visited that section, saw and tested the ores, and found them very rich in nickel. Thus far three immense veins of nickel have been found, and five or six smaller ones. One of the large veins is from 5 to 8 ft. wide, and crops out in places for more than two miles. Another is from 6 to 15 ft. wide, and can be traced for nearly two miles. The third is from 6 to 8 ft. wide, and crops out for nearly a mile. The ore in these veins shows from 15 to 75 per cent. of nickel, besides carrying a small per cent. of copper, gold, and silver. The smaller veins are 2½ to 5 ft. wide, and can be traced from half to one mile in length. They carry about the same per cent. of nickel, but are much richer in gold and silver.

Adjoining these, and not far distant, three fine veins of silver have been found. One of these is from 5 to 8 ft. wide, rich in lead and silver. Another vein is from 8 to 10 ft. wide, and carries only silver. A third vein is from 2½ to 4 ft. wide, rich in gold, silver, and lead. The ore from two of these veins will work nicely in a smelter, the others are milling ores. Several smaller veins of silver have been found, some rich in silver and gold, others in silver and nickel, and still others in silver and lead.

The Silver Queen Silver Mine, recently located, is said to have yielded $300 per ton by fire assay. The samples taken and assayed thus far from the veins have yielded from $670 upwards per ton The lowest returns by fire assay were $670 per ton of 2000 lbs. The investigations made within the last year proves that the mineral belt near the Real del Castillo is nickel, that the mother veins are nickel, that there are a few good gold mines, but after that silver predominates, and that the whole mineral section is nickel and silver, with some gold and copper interspersed in veins and deposits where not found in the same vein with the nickel and silver.

Nickel ore carrying 15 per cent. of nickel is now worth $300 per ton, while that yielding 75 per cent. is worth $1500 per ton. Negociations are now pending with some of the best nickel men in the United States and Europe for the establishment of reduction works for treating these ores. Prof. Geo. J. Rockwell has lately invented a process by which nickel ores can be reduced to pure nickel by one step, thus rendering it possible to work at a good profit those that carry but 4½ per cent. of nickel. He is as yet the only metallurgist who has been able to do this. These veins have been traced out, in fact, nearly all of them found by the "magnetic survey" or "electric instrument" of Prof. Blair, and thus far they have proved, in every case, just as indicated by the instrument. It is the same as that used by Mr. Weldon in the discovery of the Gold King Mine, in Sierra County, Cal.

These discoveries of rich veins of nickel and silver in Baja California, within 100 miles of us, and in a mineral belt where for more than ten years only gold was thought to exist, opens up a new field for the investment of capital and a field of great importance to San Diego. Prof. Blair, with others, still continues his investigations, extending his search in every direction from the Real del Castillo. He proposes soon to visit the "Lost Mine" district to test the metal already found there; also to ascertain whether the "Lost Mine" of the Frenchman ever existed or not, the ore of which yielded from $14,000 to $28,000 per ton, specimens of which are in possession of E. W. Morse and W. A. Begole, of this place. The Bee Line Railroad, when built (it must be) will run within from one to three miles of these nickel mines, and four to five miles from the silver mines. Nickel has also been found near the boundary line, east of the Tia Juana.

LOCKING SAFETY-LAMPS.

An improved lock, by which the several parts of a safety-lamp may be securely locked together, has been invented by Mr. W. RYDER, of Newcastle-on-Tyne. When the lamp consists of two or more parts (such as in the Marsaut lamp) which require to be locked together he uses a moveable pillar, arranged in such a manner that when the upper part of the lamp is placed in position the moveable pillar is moved up into a recess cut in the said upper part. The bottom of the lamp is then screwed on, and the pillar is brought partly back from the recess in the upper part of the lamp into another recess cut in the bottom. The pillar is then locked in this final position, which may be effected by means of a plug or rivet, made of lead or other suitable material, passing through holes in projecting pieces of the middle part of the lamp, also passing through a corresponding hole in the pillar, the said plug or rivet being rivetted over at the ends to prevent it being removed until required, but he does not limit himself to this particular mode of locking. The same arrangement of loose pillar can be used for locking the upper part of the lamps only by allowing the loose pillar when in the locked position to rest on the bottom of the lamp in such a manner that the pillar cannot be withdrawn from the recess in the upper part of the lamp after the bottom of the lamp has been screwed into position.

The bottom of the lamp can then be locked by a plug or rivet, or by any of the usual methods. It will be evident that, although he has mentioned only one pillar and its connections, yet that several such pillars and connections may be used on each lamp if required. When the lamp consists of only two parts, such as the lamps known as the Davy, Clanny, Stephenson, Muesseler, and others, he makes use of the same arrangement of pillar; but in this case it is only necessary to insert the moveable pillar into recesses cut in the bottom and lock the same by the hole in the pillar with the plug or rivet. The pillar may be moved into the various positions for locking the lamps by means of springs, and may be secured by means of either the plug or rivet, or by a padlock screw lock or other suitable means.

UTILISING KIMMERIDGE SHALES.

The shale with abundance of sulphur obtained from the oolite system, present in large quantities at Kimmeridge, in Dorsetshire, has hitherto been distilled at a high temperature, and it is well known that the products obtained therefrom are almost valueless, whilst the foul smell arising during its treatment has become a public nuisance. The manner in which Messrs. IRVINE and SLATER, of Blackwood, Lanarkshire, propose to remedy these objections is by utilising the sulphuretted compounds given off during the distillation of these shales, and to obtain from them sulphur and other products of marketable value, and in order to effect these objects they proceed thus:—They take shale which contains varying but large quantities of sulphur, combined either with organic or inorganic matters present, and distil them at a low heat (such as is used in the distillation of ordinary oil-yielding shales) with or without the application of steam (preferably with the application of steam) and they condense the watery and oily distillates in the usual manner. They then conduct from the retorts in which the distillation is effected the gases generated consisting of incondensible hydrocarbons and sulphur compounds, principally sulphuretted hydrogen, and treat them in any one of the following modes.

According to one mode of carrying out the invention they simply burn the gases, and employ the sulphurous acid produced thereby for the manufacture of sulphuric acid in the usual well-known manner. According to another mode they mix sulphurous acid in a gaseous state, or in solution in water with these gases containing sulphuretted hydrogen, or with sulphurous acid gas and steam, the result being their mutual decomposition, and the formation of water whilst free sulphur is eliminated. According to a further mode of carrying out the invention they employ oxides of iron such as are usually used for the purpose of gas purification, which oxides absorb the sulphuretted hydrogen vapours and fix the sulphur, and they then employ the product for the manufacture of sulphuric acid in the usual manner employed for its preparation from pyrites or sulphur ores.

BREAKING UP BALLS OF SLAG.—To break up balls of slag and similar material into pieces of a convenient size for handling, Messrs. DALGLEISH and LYNDE, of Melton Mowbray, propose to run the molten slag in the usual manner into boxes or holes from the furnace, and during this operation, and while the slag is still running, they introduce small pieces of limestone, thus getting the limestone into the body of the slag. When the slag has set it is turned out of the boxes or holes and water is poured over it, or it may be left exposed to the action of the weather. This causes the lime (which has become calcined from the heat of the molten slag) to be strong enough, in its conversion into hydrate of lime, to break up the balls of slag into convenient sized pieces for handling. It is claimed that the invention may be used for breaking up any other substances into which pieces of limestone can be introduced and calcined in the manner described.

COAL STATISTICS.—The secretary of the British Iron Trade Association, Mr. J. S. Jeans, states that the total amount of coal raised in the United Kingdom in 1883 was 163,737,327 tons, showing an increase of 7,237,350 tons, or 4½ per cent. on that raised in 1882. During the year 11,495,401 tons of ironstone were got—a decrease of 10,046 tons. There were 514,933 persons employed in and about mines in 1883, against 503,987 in the previous year.

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6000	Carn Brea, c, t, Illogan†§	12 12 11	2⅝	3 3¼	52 11 8	0 10 0	Nov. 1881
4000	Craignant Bach,* l, Cardigan	5 0 0	—		0 5 0	0 5 0	Nov. 1882
10240	Devon Gt. Consols, c, a, Tavistock*†	1 0 0	3½	3 3½	118 7 0	0 6 3	Dec. 1880
4700	Dolcoath, c, t, Camborne	10 14 10	75	75 77½	36 18 0	0 10 0	Mar. 1884
6400	East Pool, t, c, Illogan	0 9 9	42½	40 42½	38 17 6	0 18 0	Feb. 1884
12000	Great Holway,* l, Flintshire	5 0 0	—		0 12	0 7 6	Sept. 1883
15000	Great Laxey, l, Isle of Man*†	4 0 0	12	10½ 11	29 18 0	0 6 0	Oct. 1883
6400	Green Hurth, l, Durham*	0 6 0	6¼	6 6¼	4 18 0	0 5 0	Dec. 1883
9830	Gunnislake (Clitters), t, c	2 2 0	1⅛	⅞ 1⅛	0 19 9	0 2 0	Mar. 1882
2800	Isle of Man, l, Isle of Man*	25 0 0	—		83 5 0	1 0 0	Sept. 1880
6000	Killifreth, t, Chacewater	4 3 6	⅜	¼ ⅜	0 14 6	0 2 0	Nov. 1883
20000	Leadhills,* l, Lanarkshire	6 0 0	2⅜	2⅛ 2⅜	1 5 6	0 1 6	Sept. 1883
400	Lisburne,* l, Cardiganshire	18 15 0	—		615 0 0	0 10 0	June 1883
10000	Mellanear, c, Hayle*	2 0 0	1¼	1 1¼	2 4 3	0 0 6	Jan. 1884
9000	Minera Mining Co., l, Wrexham*	5 0 0	6	5 6	69 11 8	0 2 0	Feb. 1884
20000	Mining Co. of Ireland, cl, c, l*	7 0 0	—		24 0 0	0 2 6	Jan. 1880
11829	North Hendre, l, Wales	2 10 0	—		3 18 0	0 4 0	Nov. 1882
8146	Ditto	1 5 0	—		0 11 3	0 2 0	Nov. 1882
2000	North Levant, t, c, St. Just	13 6 0	—		4 16 0	0 3 0	Feb. 1881
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12000	Roman Gravels, l, Salop*	7 10 0	4¼	3¾ 4¼	9 11 0	0 5 0	May 1883
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9000	South Darren, l, Cardigan*	1 10 0	⅜	⅝ ⅜	0 4 0	0 2 0	Apr. 1880
6000	Tincroft, c, t, Pool, Illogan†§	13 12 6	4	4½ 4¾	51 3 6	0 5 0	Dec. 1881
15000	Van, l, Llanidloes*	4 5 0	2¼	1¾ 2⅛	25 13 0	0 2 6	Jan. 1883
15000	West Holway,* l, Flintshire	1 0 0	1¼	¾ 1¼	0 1 0	0 1 0	Oct. 1881
6000	West Basset, c, Illogan†§	7 10 4	2¾	3¾ 4¼	28 3 8	0 6 8	Apr. 1882
6000	West Kitty, t, St. Agnes	0 12 0	12½	12 12½ x.d.	2 9 0	0 10 0	Mar. 1884
6000	Wheal Agar, c, Illogan‡	19 6 0	13½	14 15	0 5 0	0 5 0	Apr. 1884
12000	Wheal Crebor, c, Tavistock	2 4 0	1⅜	1⅛ 1⅜	1 1 3	0 2 6	Nov. 1883
1024	Wheal Eliza Consols, t, St. Austell	18 0 0	—		59 0 0	1 0 0	Nov. 1883
6000	Wheal Grenville, t, Camborne	15 0 0	5¼	5 5½	1 17 6	0 2 6	Mar. 1884
4295	Wheal Kitty, t, St. Agnes§	5 12 0	⅜	⅜ ⅜	12 18 6	0 1 6	Jan. 1881
3000	Wheal Peevor, t, Redruth§	13 1 0	1	⅝ ⅞	8 13 6	0 4 0	Mar. 1881

FOREIGN DIVIDEND MINES

Shares.	Company	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd
35500	Alamillos, l, Spain*†	2 0 0	1¾	1½ 1¾	2 15 2	0 2 0	Mar. 1884
130000	Almada and Tirito Consol., s*†	1 0 0	9/16	7/16 9/16	0 6 3	0 1 0	May 1876
20000	Australian, c, South Australia†	7 7 6	3	2½ 3	1 9 6	0 2 0	Aug. 1883
15000	Birdseye Creek, g, California*	4 0 0	1¼	⅞ 1	1 5 0	0 1 0	Jan. 1884
30000	Bratsberg,* c, Norway†	2 0 0	1¾	1½ 2	0 4 4½	0 1 2¼	Mar. 1884
130000	California,* g, Colorado	1 0 0	11/16	9/16 11/16	0 2 0	0 1 0	Aug. 1883
20000	Cape Copper Mining,*† South Africa	8 0 0	44	42 44xd	56 7 6	1 0 0	Mar. 1884
65000	Colorado United, s-l Colorado*†	5 0 0	2¾	2½ 3	0 14 6	0 1 0	May 1883
60000	Copiapo, c, Chili* (£4 shares)†	3 10 0	2¾	2¾ 3	2 14 3	0 3 0	Dec. 1883
70000	English & Australian,*† c, S. Aust.	2 10 0	—		3 2 9	0 2 0	Mar. 1883
2000	Eng.-Aus., g, Vict.* pref. (20000 o.)	1 0 0	—		0 3 8	0 3 8	Apr. 1882
25000	Fortuna, l, Spain*†	2 0 0	3½	2¾ 3¼	8 11 5	0 3 2	Mar. 1884
72000	Frontino & Bolivia, g, New Gran.*†	2 0 0	1⅛	⅞ 1⅛	0 12 0	0 1 0	Dec. 1883
270000	Henriett,* l, Leadville, Colorado	1 0 0	—		0 0 9	0 0 5	Feb. 1883
200000	La Plata, s-l, Leadville†	2 0 0	⅜	¼ ⅜	0 12 11	0 1 3	Oct. 1882
5000	Linares, l, Spain*†	3 0 0	3¼	2¾ 3¼	19 10 4	0 3 0	Mar. 1884
20000	Marbella Iron Ore, *, Spain	10 0 0	2½	2 2½	0 10 0	0 10 0	June 1882
185164	Mason & Barry* c, Portugal	10 0 0	12½	12⅛ 12¾	3 15 0	0 15 0	Apr. 1884
80659	QuebradaRail., Land, & Cop. Venezuel	10 0 0	5	4½ 5	6 per cent.		1882
50000	Panulcillo, c, Chili*†	4 0 0	5¼	4¾ 5¼	1 18 9	0 3 0	Nov. 1883
25000	Pitangui,* g, Brazil (in. 6000 £1 pd).	0 10 0	—		0 1 0	0 1 0	Sept. 1880
1400	Pontgibaud, s-l, France†	20 0 0	8	6 8xd	30 3 1	0 11 3	Dec. 1883
100000	Port Phillip, g, Clunes*† (£2 shares)	1 0 0	⅜	0 ⅜	1 14 2	0 0 10	Feb. 1881
50000	Rara Fortuna,* s, Argent. Republic.	1 0 0	—		0 3 0	0 1 0	July 1882
64000	Richmond Consol., s, Nevada*†	5 0 0	3½	3¼ 3¾	14 18 6	0 5 0	Aug. 1883
24532	Rio Tinto,* c, Mortgage Bds., Huelva.	100 0 0	102	101 103	5 per cent.		July 1880
325000	Ditto, shares	10 0 0	19½	20½ 21½	2 18 0	0 16 0	May 1883
40000	Santa Barbara,* g, Brazil	0 10 0	—		0 12 9	0 1 0	May 1882
122000	Schwabs Gully, d, Kimberley	10 0 0	8¼	8 8¼	5 2 6	0 10 0	Jan. 1884
120000	Scottish-Australian Mining Co.*†	1 0 0	2½	2¼ 2½	15 p. cent.	0 1 6	Nov. 1883
80000	Ditto, New	0 10 0	1⅛	1¼ 1½	15 p. cent.	0 0 9	Nov. 1883
22500	Sierra Buttes, g, California*†	2 0 0	1⅜	1⅛ 1⅜	2 6 0	0 1 0	Oct. 1883
40625	Ditto, Plumas Eureka	2 0 0	1⅛	1⅛ 1⅜	3 0 0	0 2 0	Oct. 1883
253000	St. John del Rey*† (£5 Stock and multiple dealt in)			55 60	5 p.c. for half-year,		June 1882
160000	Tambracherry,* g, Wynaad	1 0 0	—		0 0 6	0 0 6	Aug. 1882
625000	Tharsis,* c, sul, Spain (587330 issued)†	2 0 0	6½	6½ 7	6 18 8	0 11 0	May 1883
20000	Tolima,* g, s, Colombia (A shares)	5 0 0	8	7½ 8	4 6 6	0 10 0	Jan. 1884
20000	Ditto (B shares)	5 0 0	5¼	4¾ 5¼	—	—	—
25000	Victoria* (London), g, Australia	1 0 0	—		0 13 10	0 0 8	Feb. 1881
100000	Victorine (Nevada, U.S.) Deb. Bds.	1 0 0	—		0 2 0	0 0 6	June 1882
15000	Western Andes, s, Colombia	5 0 0	5¼	4¾ 5¼	4 5 9	0 2 6	Oct. 1883
2100	W. Prussian (5500 pref. sh. £10 pd.)	10 0 0	7	6 7	4 2 0	0 8 0	Apr. 1881
64800	Yorke Pen., c, South Aust. Pref.†	1 0 0	⅜	⅜ ⅞	0 2 0	0 2 0	May 1882

§ Have made calls since last dividend was paid.

NON-DIVIDEND BRITISH MINES.

Shares.	Company	Paid.	Last wk.	Clos. pr.
25000	Aberduna,* l, Denbigh	1 10 0	1¼	1 1¼
12000	Anderton, t, c l, Devonshire	1 2 6	—	⅛ ⅜
12000	Assheton, l, Carnarvonshire*	5 0 0	—	
12000	Bedford Unit.,* c, Tavis. (£1 liab.)	0 14 0	1⅜	1⅛ 1⅜
10000	Brada,* l, Isle of Man	1 0 0	—	
30000	British,* s-l, bl, Wrexham	1 0 0	—	
20000	British Manganese Company*	1 0 0	—	
30000	Beuno Consols,* s-l, Flintshire	1 0 0	2¼	2 2¼
20000	Bwlch United,* l, Cardigan	1 0 0	—	
12000	Collacombe Consols, c, bl, Lamerton	0 2 6	—	
50000	Carn Camborne,* t, c, Camborne	1 0 0	1⅛	1¼ 1⅛
37500	Carnarvonshire Cons.,* l, Llanrwst.	2 0 0	1	⅜ 1
6400	Cashwell,* l, Cumberland‡	2 19 0	1¾	1⅝ 1¾
6000	Cathedral, c, t, Gwennap	1 6 6	⅜	⅛ ⅜
20000	Central Foxdale,* l, Isle of Man	1 17 6	—	
25000	Coed-y-Fedw & Pant-y-Buarth,* l	1 0 0	—	
2450	Cook's Kitchen, t, Illogan†	33 14 9	11	10 12
30000	Creiglog,* l, bl, Denbighshire	0 17 0	⅜	⅜ ⅜
6400	Crook Burn,* l, Cumberland	0 17 0	—	
48728	D'Eresby Mountain, l, bl, Llanrwst.	0 10 0	⅜	¼ ⅜
12000	Derwent,* l, Durham	4 0 0	—	
60000	Devon Friendship,* c, ars, Tavistock	1 0 0	3/16	⅛ 3/16
12000	Devon Great United* (2l. shares)	1 17 6	⅜	⅜ ⅜
20000	Drakewalls,* t, c Calstock	0 15 0	¼	3/16 ¼
50000	Duchy Peru,* bl, , s, Cornwall	1 0 0	1 3/16	
12000	East Blue Hills, t, St. Agnes	0 5 0	⅜	¼ ⅜
6000	East Botallack, t, St. Just	1 2 6	—	1⅛ 1⅜
6144	East Caradon, c, St. Cleer‡	4 19 0	¼	⅛ ¼
4000	East Chiverton, l, Perranzabuloe	10 17 3	—	
30000	E. Craven Moor,* l, Pateley Bridge	1 0 0	—	
15000	East Devon Cons.,* c, Buckfastigh.	2 0 0	⅝	⅛ ⅝
20000	East Long Rake,* l, Wales	1 0 0	—	
25500	East Roman Gravels,* l, Salop	1 0 0	⅜	⅛ ⅜
18000	East Van, l, Llanidloes*	5 0 0	—	
2048	East Wheal Lovell, t, Helston	18 18 6	1	¾ 1
100000	East Wheal Rose,* s-l, Newlyn East	1 0 0	½	⅜ ½
25000	Ecton,* s, Wetton	1 0 0	2¼	2¼ 2¾
12500	Frongoch,* l, Cardgn (11000 sh.iss.)	2 0 0	—	
12000	Gawton,* c, Tavistock	2 0 0	⅜	¼ ⅜
40000	Glasg. Car.,c* [30000sh. £1 pd., 10000 15s. pd.]		—	
30000	Gobbett,* t, Devon	1 0 0	1⅛	1 1⅛
10000	Goddards,* l, o, Carnarvon	1 0 0	—	
32000	Goginan,* l, Cardiganshire	1 0 0	⅜	¼ ⅜
25000	Goodevere, t, St. Cleer	1 0 0	1⅜	1 1⅛
8500	Gorsedd and Merllyn Con., l, Flint.	2 10 0	3	2½ 3
6000	Great West Chiverton, l, St. Agnes.	0 6 6	½	⅜ ½
50000	Great W. Shepherds* l. Cornwall	0 5 0	7/16	5/16 7/16
20000	Grogwinion, l, Cardigan*	2 0 0	—	
10000	Gwern-y-Mynydd,* s-l, Flint (pref.)	4 0 0	1	⅞ 1
70000	Gwydyr Amal.* l, bl, Carnarvon	1 0 0	—	
8400	Hardshins,* l, Westmore. (10s. sh.)	0 2 6	3/16	⅛ 3/16
12000	Herodsfoot, l, near Liskeard†	1 6 0	⅜	⅛ ⅜
18000	Hingston Down, c, Calstock*†	0 13 0	¼	⅛ ¼
35000	Holway Consols,* l, Flintshire	1 0 0	—	
25000	Kit Hill Gt. Cons.* c, ars-m, (2l. sh.)	1 2 6	⅛	1/16 ⅛
15000	Lady Ann,* s-l, Llanarmon	1 0 0	—	
15000	Llandegla,* l, Wales	1 0 0	—	
5120	Lovell, t, Wendron	0 16 0	⅜	⅛ ⅜
9000	Marke Valley, c, Linkinhorne‡	7 11 0	⅜	¼ ⅜
6000	Medlyn Moor, t, Wendron	3 15 0	—	
8000	Mona,* c, Anglesea	5 0 0	—	
20000	Mona Consols,* c, Anglesea	1 0 7	⅜	¼ ⅜
15000	Monkstown,* man, Devon	2 0 0	1⅝	1½ 1⅝
20000	Mostyn Consols,* s-l, Flint.	1 0 0	¾	1 1½
12000	Morfa Du, z, g, s, Anglesea*	1 0 0	—	
80000	Mounts Bay,* c, t, Breage	1 0 0	5/16	¼ 5/16
6144	Mount Carbis, t, c, Redruth	1 15 0	1¾	2½ 2¼
12000	New Caradon, c, St. Cleer	0 5 0	¼	⅛ ¼
2400	New Cook's Kitchen, t, Illogan	9 13 6	1¼	1¼ 1⅜
8000	New Dolcoath, t, c, Camborne*	3 0 0	—	
10000	New Holmbush,* t, c, Callington	3 0 0	—	
6000	New Kitty, t, St. Agnes	1 2 0	1⅞	1⅝ 1⅞
25000	New Langford,* s, c, Callington	0 2 6	3/16	⅛ 3/16
15000	New Redmoor,* var, Callington	1 5 0	—	
17500	New Terras,* t, St. Austell	1 0 0	½	¼ ½
3500	New Tincroft,* t, Lelant	6 0 0	—	
12000	New Trumpet,* t, Wendron	1 0 0	1½	1 1½
30000	New Van Cons. & Glyn,* l,	7 0 0	½	⅜ ½
12000	New West Caradon, c, Liskeard	0 8 0	4s.	2s. 4s.
3000	New Wheal Peevor, t, Redruth	0 10 0	—	
12000	North Blue Hills, t, St. Agnes	0 2 6	1/6	1s. 1s. 6d.
5328	North Busy, t, c, Scorrier‡	1 19 8	¼	⅛ ¼
10000	N. D'Eresby Mount.,* l, bl, Carnarv.	1 0 0	—	
25000	North Goginan,* l, Cardiganshire	1 0 0	—	
6400	North Green Hurth,* (3400 1l. pd.)	0 2 6	—	
25000	North Grogwinion,* s-l, Cardigshr	1 0 0	⅜	¼ ⅜
12000	North Herodsfoot, l, Liskeard	0 13 6	—	

NON-DIVIDEND MINES—*continued.*

Shares.	Company	Paid.	Last wk.	Clos. pr.
50000	North Molton,* c, mn, i, Devon	1 0 0	—	
6000	North Penstruthal, t, c, Gwennap	3 4 6	⅛	⅜ …
2936	North Treskerby, c, St. Agnes	1 0 0	—	
8000	Northern,* l, Durham	8 17 10	—	
40000	Okel Tor,* t, c, a, Calstock	1 0 0	—	
30000	Old Shepherds s-l, Cornwall	1 0 0	1 3/16	1⅛ …
60000	Owen Vean & Tregur.,* t, c, Marazion	1 0 0	1½	1 1⅛
45000	Parys Corporation,* c, Anglesea	1 0 0	⅜	5/16 …
7500	Pateley Bridge, l, Yorkshire	1 0 0	—	
6000	Pedn-an-drea, t, Redruth	4 7 0	½	⅜ …
6000	Pennant, l, bar, North Wales*	5 0 0	5	4½ …
20000	Penegarreg, l, Carmarthenshire	1 0 0	—	
15000	Pen-yr-Orsedd,* l, Flintshire	1 0 0	—	
15000	Perran Consols,* s-l	1 0 0	½	¼
12000	Perran Wheal Alfred, c	0 2 6	—	
10000	Polberro, t, St. Agnes	0 2 0	1¼	1⅛ 1¼
6000	Polcrebo, t, Crowan	0 16 6	2	1½ …
4516	Polrose, t, Cornwall	1 12 0	½	¼ …
10000	Port Nigel Syn.,* s-l, Carnar. (4000 is.)	0 15 0	—	
18000	Pr. Patrick,* s-l, (als. 12000 pf. 10 p.c)	1 0 0	—	
12000	Prince of Wales, c, s, Calstock	1 6 0	⅜	¼ ⅜
36000	Russell United,* c, Tavistock	0 15 6	½	⅜ …
30000	Silver Hill,* Callington	1 0 0	—	
50000	Sinclair,* l, bl, Whitford	1 0 0	1⅛	1 …
40000	Sortridge,* c, Horrabridge	1 0 0	⅛	1/16 …
50000	South Caradon,* c, St. Cleer†	1 0 0	⅜	¼ …
6000	South Carbis, t, c, Redruth	0 10 0	1⅜	1⅛ 1⅜
42000	So. Devon Unit.,* c, Buckfastleigh.	1 0 0	⅜	¼ …
5000	South Dolcoath, c, t, Illogan	0 19 0	1	¾ …
6000	South Kitty, t, St. Agnes	0 10 0	9/16	7/16 …
6000	South Penstruthal, t, c, Gwennap	3 10 6	½	5/16 …
30000	So. Phoenix & Caradon,* t, c, Linkinhn.	1 0 0	1¼	1 …
6000	South Tolcarne, t, c, Camborne	5 11 6	1⅛	1¼ …
2043	South Wheal Crofty, c, Illogan	5 19 6	2½	3 …
6000	South Wheal Frances, t, Illogan†	9 19 4	9¼	10¼ …
40000	Tamar, s-l, Bearalston*	1 0 0	1	¾ …
110000	Tankerville Gt. Consols, l, Salop*.	1 0 0	2s.	1s. …
12000	Trebartha Lemarne, t, Northill	0 6 3	⅝	⅜ …
6000	Tregembo, t, c, Cornwall	4 0 0	—	
50000	Tregontraes and Old Polgooth Con.	1 0 0	—	
100000	Tresavean,* t, c, Gwennap	1 0 0	½	¼ …
60000	Trevarren United,* t, Cornwall	1 0 0	½	⅜ …
8000	Trevaunance, t, St. Agnes	0 6 0	2½	2 …
1000	Vaughan,* l, Cardiganshire	10 0 0	—	
50000	Weardale,* l, Northumber. (4l. share)	1 2 6	1⅛	1¼ …
12000	West Assheton, l, Carnarvon	1 0 0	—	
12000	West Caradon c, St. Cleer	0 9 3	4s.	2s. …
30000	West Cornwall,* t, Cornwall	1 0 0	1⅛	1 …
3000	W. Craven Moor, l, Pateley Bridge*	10 0 0	—	
12000	West Crebor, c, Tavistock	0 11 6	2s.	1s. …
10240	West Devon Consols, c, Calstock	1 2 0	¼	⅛ …
10000	West Godolphin, t, c, Breage	1 3 6	1¼	1 …
12000	West Gonamena, c. St. Cleer	0 1 0	⅛	1/16 …
20000	West Lisburne,* l, Cardigan	1 0 0	⅜	¼ …
3000	West Mary Ann, l, Menheniot	1 18 0	⅜	¼ …
30000	Westminster Consols,* l, Flintshire‡	1 0 0	1⅜	1⅛ …
20000	W. Pateley Bridge, l, Yorkshire	1 0 0	—	
12000	West Phoenix, t, Linkinhorne	1 5 0	¼	⅛ …
6000	West Polbreen, t, c, St. Agnes	0 11 0	1	¾ …
5190	West Poldice, St. Day‡	7 10 6	⅜	¼ …
2048	West Wheal Frances, t, Illogan‡	39 13 3	10½	10½ …
3000	West Wheal Peevor, t, Redruth	4 0 6	¼	⅛ …
2400	West Wheal Seton, c, Camborne†§	19 10 0	4½	4 …
6144	Wheal Basset, c, Illogan‡	8 19 6	3½	3 …
3000	Wheal Boys, t, Redruth	1 3 6	—	
50000	Wheal Castle,* c, t, St. Just	1 0 0	1⅛	1 …
12000	Wheal Coates, t, St. Agnes	0 10 6	¼	⅛ …
2585	W. Comf., & No. Tres., t, c, Gwennap	2 2 0	1	¾ …
30000	Wheal Britannia, t, c, Gwennap	1 0 0	1s.	6d. …
50000	Wheal Elizabeth,* t, Cornwall	1 0 0	—	
12238	Wheal Jane, t, Kea‡	3 3 0	2s.	1s. …
12000	Wheal Jewell, c, St. Hilary	1 0 6	¼	⅛ …
25000	Wh. Hony and Trelawny, s-l, Lisk.	2 0 0	—	
12000	Wheal Lusky, t, Callington	0 3 9	½	⅜ …
2000	Wheal Owles, t, St. Just‡	7 3 0	—	
30000	Wh. Silver & Lanteglos,* s-l, Camelfd.	1 0 0	1	¾ …
6000	Wheal Sisters, t, Lelant	4 2 6	⅜	¼ …
4096	Wheal Uny, t, c, Redruth	19 9 6	½	¼ …
21866	Wye Valley, l, Montgomery.*	1 0 0	½	…
60000	Yeoland Consols,* t, Devonshire	0 12 6	¼	⅛ …
4000	Ystwith,* l, Cardigan	1 0 0	—	

bl, blende; *c*, copper; *g*, gold; *l*, lead; *s*, silver; *sl*, slate; *s-l*, silver-lead; *t*, tin; *z*, zinc; *i*, iron; *a*, arsenic; *d*, diamond. * Limited Liability Companies; † quoted on the Stock Exchange. ‡ have paid dividends.

NON-DIVIDEND FOREIGN MINES; FOREIGN AND MISCELLANEOUS STOCKS; TRAMWAYS; INSURANCE COMPANIES; GAS, IRON AND COAL, WAGON COMPANIES, &c.

NON-DIVIDEND FOREIGN MINES.

Shares.	Company	Paid.	Clos. pr.
80000	Akankoo,* g, Gold Cst. (100000 iss.)	0 17 6	5/16 7/16
84880	Anglo-African,* d, Kimberley,†	10 0 0	1½ 2½
65000	Anglo-Mexican,* (also 325 sh. £1)	5 0 0	
12000	Arendal, c, Norway	4 0 0	
20000	Asia Minor,* s-l, Lidjessy, Sivas	0 15 0	⅛ ⅜
28000	Belt,* c, Lake Sup., (22000 £4 paid)	5 0 0	
40000	Brazilian, g,* Brazil	1 0 0	
200000	British Australian,* g, N. So. Wales	1 0 0	
18000	Broadway,* g, California	5 0 0	⅛ ⅜
10000	Buena Ventura,* l, Spain (fy. pd)	2 0 0	
80000	Callao Bis,* g, Venezuela	1 0 0	1/16 3/16
15000	Canada,* g	1 0 0	
82500	Canadian, c, sul,* Canada†	4 0 0	⅜ ⅝
23000	Central Jagersfontein Diamond*	5 0 0	¼ ⅜
00000	Chile,* g, Venezuela	1 0 0	1/16 3/16
75000	Colar,* g, Mysore	0 15 0	
75000	Colombian Hydraulic, g, Colombia	1 0 0	¼ ⅜
88000	Cootacovil,* g, Wynaad	0 15 0	
35000	Chontales, g, s, Nicar.*† (108749 iss)	1 0 0	⅛ ¼
2000	Clear Creek, * s, Colorado	1 0 0	
120000	Devala Central,* g, Wynaad	1 0 0	
100000	Devala Moyar,* g, Wynaad†	1 0 0	1/16 3/16
75000	Devala Provident,* g, Wynaad†	0 10 0	
100000	Dingley Dell,* g, Devala, India	1 0 0	
125000	Don Pedro North del Rey*	1 0 0	
205168	Eberhardt, s, Nevada*†	1 0 0	3/16 5/16
65000	Eureka,* s, Nevada	1 0 0	
100000	Exchequer, g, s, California*†	1 0 0	1/16 3/16
60000	Flagstaff District,* s.g. Utah	1 0 0	1s. 2s.
40000	Georgia,* g, United States	10 0 0	
65000	Gold Coast,* g, Wassau	1 0 0	
40000	Gold Hill,* g, North Carolina	1 0 0	¼ ⅜
50000	Gold Mining Assn. of Canada*	1 0 0	
75000	Great Southern Mysore,* g	1 0 0	
20000	Hoover Hill,* g, North Carolina	1 0 0	⅛ ¼
12000	Hultafall,* l, bl, Orebro, Sweden	5 0 0	
400000	Indian Consolidated,* g	1 0 0	1/16 3/16
240000	Ind. Glenrock,* g, Wynaad†	1 0 0	1/16 3/16
100000	Iron Gate* cl. chr. Hungary	1 0 0	1 1¼
150000	Isabelle,* g, s, California	1 0 0	
100000	I.X.L., g, s, California*	1 0 0	1/16 3/16
60000	Javali, g, Nicaragua*	2 0 0	
100000	Kapanga,* g, New Zealand	1 0 0	3/16 5/16
100000	Kohinoor,* s, Colorado	1 0 0	⅜ ½
500000	Lisbon-Berlyn,* g, South Africa	1 0 0	
65000	London and California, g*†‡	2 0 0	
135000	Madras,* g, Mysore	1 0 0	
160000	Michipicoten,* nat. c, Quebec	1 0 0	⅛ ⅜
9000	Missouri, l, pref (fully paid)	10 0 0	
60000	Moselle,* l, b-l, Germany	1 0 0	
85000	Mysore,* g, India†	1 0 0	1/16 3/16
75000	New Callao,* g, Venezuela	1 0 0	3/16 5/16
78500	New Emma,* s, Utah	10 0 0	⅜ ⅝
37000	N. Gold Run,* hyd, Cal. (& 23000 pref	1 0 0	
200000	Nouv. Monde, g, Ven. (en com.)†	1 0 0	1/16 3/16
100000	Nundydroog,* g, Mysore	1 0 0	
60000	Olathe,* s-l, Leadville, Colorado	1 0 0	
125000	Ooregum,* g, Mysore	1 0 0	
12000	Oregon, g, U.S. (4000 prf. sh.)	0 2 6	
15000	Organos,* g, Colombia	1 0 0	
20000	Orita,* g, Colombia	1 0 0	
75000	Oscar,* g, Norway (£1)	0 5 0	
60000	Ouro Preto* g, Brazil	5 0 0	
60000	Pestarena United, g, Italy*†	3 0 0	
100000	Pierre d'Or,* g, Spain	1 0 0	
80000	Pierrefitte* (20000 pref.)	1 0 0	
100000	Placerville, g, q, California	1 0 0	
49000	Potosi,* g, Venezuela†	1 0 0	⅛ ¼
40000	Ravenscliff g, N. Zlnd; c, S. Aust.	1 0 0	
90000	Rhodes Reef,* g, Wynaad†	1 0 0	1/16 3/16
35000	Rico, s, Colorado (non-assessable)	2 0 0	
5600	Rio Grande do Sul* (and 31,000 pref.)	5 0 0	
100000	Rosa Grande, c, Brazil*† (£1 sh.)	1 0 0	
25800	Ruby and Dunderberg, g, Nev.*†	10 0 0	⅞ 1⅛
50000	Santa Cruz,* (ex. 10s, retd. cap.)	1 0 0	

NON-DIVIDEND FOREIGN MINES—*continued*

Shares.	Company	Paid.	Clos. pr.
250000	Sentein,* s-l, bl, Ariège, France	1 0 0	1/16 ⅛
200000	Silver Chord,* s, Colorado	1 0 0	11/16 13/16
150000	Silver Peak,* s, Colorado	1 0 0	
00000	Souback & Catir Alan,* g s-l, Turkey	1 0	
207363	So. Austral. Cop. Mines (Corp. of)	1 0 0	3/16 5/16
50000	S. A. Gold Explor. and Land	1 0 0	
100000	South-East Wynaad, g, India†	1 0 0	1/16 3/16
100000	Spitzkop,* g, Transvaal	1 0 0	¾ 1
250000	Taunus,* s-l, c, Germ. (& 100,000 pf.)	1 0 0	
100000	Tocopilla,* c, Bolivia	0 15 0	⅛ ¼
43174	United Mexican,*†‡ s, Mexico	29 12 9	11 11½
50000	Virneberg, c, Rheinbreitb., Ger.*	2 0 0	
200000	Victoria,* g, Venezuela	1 0 0	⅞ 1
120000	Wentworth,* g, Wynaad	1 0 0	1/16 3/16
75000	West Callao,* g, Venezuela	1 0 0	4s. 6s.
100000	West Frntno & Boliv.,* g, Colombia	1 0 0	
80000	Wynaad Perseverance,*† g	1 0 0	1/16 3/16
75000	Yorke Peninsula, c, So. Australia†	1 0 0	⅛ ¼
140000	Yuba River,* g, hyd California	1 0 0	

INSURANCE COMPANIES.

Issue.	Shares.	Company	Pd.	Clos. pr.
50000	100	Alliance British and Foreign	11	36½ 37½
10000	100	Ditto, Marine	20	20 22
50000	20	British and Foreign Marine [L].	4	21 22
550000	50	Commercial Union	5	17½ 18½
50000	50	Eagle	5	6 6½
5000	10	Globe Marine [L]	2	1¼ 1¾
27500	100	Imperial Life	10	22 24
13453	100	Indemnity Marine	50	14 15
100000	10	Lion Fire [L]	1¼	⅝ ⅞
49626	20	L'pool & Lond. Globe (£1 annty)	2	23½ 24½
35862	25	London	12½	48 52
40000	25	London and Lancashire Fire	2½	4½ 5
50000	20	London and Provincial Marine [L]	2	4 4½
40000	25	Marine [L]	4½	27½ 28½
50000	10	Merchants' Marine [L]	2	1 1½
50000	10	Maritime [L]	2	3½ 4
80000	25	North British and Mercantile	6¼	26 27
30000	100	Northern	10	41 43
40000	25	Ocean Marine	5	5½ 5¾
	—	Phoenix	—	195 205
200000	10	Queen	1	2¼ 2¾
100000	10	Railway Passengers	33s.	6¾ 7¼
200000	50	Rock Life	⅝	7⅜ 8⅜
50000	10	Sea	2	—
135000	20	Lancashire	2	5¼ 5¾
4000	20	Standard Marine	4	—
10000	20	Thames and Mersey Marine [L].	2	10½ 10¾
40640	20	Union Marine, Liverpool [L]	3½	4½ 4¾
50000	20	Universal Marine [L]	5	6½ 7

MISCELLANEOUS.

Shares.	Company.	Paid.	Price.
10	Anglo-American Brush	8 0	2⅜ 2⅝
10	Ditto do.	10 0	4¼ 4¾
5	Australasian Electric	3 0	—
25	Australian Agricultural	21 10	108 112
5	British Colonial & Gen. Invst.	5 0	5¼ 5½
1	Gen. Loan Discount & Mort.	1 0	1 1/16 1 3/16
5	Hammond Elect. L. & P. Sup.	5 0	⅞ 1⅛
1	Home Mines Trust	1 0	15/16 1 1/16
5	Indian and Oriental Electric	2 0	
10	John Vernon Hope & Co.	5 0	5½ 5¾
10	Ditto, preference	10 0	10½ 11
1	Maxim-Weston Electric	1 0	½ ¾
10	Nat. Stan. Land, Mort. & Inv.	5 0	5¼ 5⅝
Stk.	Scottish Australian Invt. Co.	100 0	235 245
Stk.	Ditto New Ordinary	90 0	225 235
Stk.	Ditto 6 per c. guar. pref.	100 0	130 135
Stk.	Ditto 5 per c. guar. pref.	100 0	110 115
5	Swan United Electric	3 10	1¼ 1⅜
10	United Asbestos	10 0	1½ 2

IRON AND COAL COMPANIES.

Shares.	Company.	Paid.	Price.
	Alltami Colliery Co. [L]	5 0	
100	Ashbury Co. [L] (new)	90 0	26 27
3	Bagnall, John, and Sons [L]	3 0	
10	[illegible]mhar Coal Co. [L]	10 0	
100	[illegible]ilbao River & Cantabrian R. Co.	100 0	5½ 6
20	Bolckow, Vaughan, & Co. [L] A	12 0	9¾ 10¼
50	Brown, Bailey, and Dixon [L]	40 0	
100	Brown, John, and Co. [L]	75 0	58¾ 59¾
100	Cammell and Co. [L]	80 0	65½ 65¾
20	Cannock & Huntington Coal [L]	10 0	10½ 10 dis
10	Central Swedish Iron & Stl. [L]	10 0	
50	Charlton Iron Co. [L]	50 0	
10	Chillington Iron Co. [L]	10 0	¾ 1
10	Consett Iron Co. [L]	7 10	19 21
1	Consett Spanish Ore [L]	1 0	2 2¼
20	Darlington Iron Co. [L]	18 10	¾ 1¼
50	Davy Brothers [L]	22 10	
23	Ebbw Vale Co. [L]	20 0	5 6
8	Genl. Mining Ass. [L] (ful. pd.)	8 0	6¼ 6¾
50	Knowles, Andrew, and Co. [L]	25 0	6½ 7
20	Llynvi and Tondu [L]	20 0	3¼ 3¾
10	Lydney & Wigpool Iron Ore [L]	9 12	½ 1
10	Midland Iron Co. [L]	5 0	
10	Monkland Iron & Coal Co. [L]	10 0	
4	Mwyndy Iron Ore [L]	3 15	½ ⅜
62½	Nant-y-Glo & Blaina (8 p.c. prf.)	62 10	47 49
3	Nerbudda Coal and Iron [L]	2½	1⅞ 2⅛
10	Newport Abercarn Coal Co. [L]	10 0	9½ 10½
35	Palmer's Shipbldg. & Iron [L]	35 0	25 25½
100	Parkgate Iron Co. [L]	65 0	73¾ 74½
20	Patent Nut and Bolt [L]	14 0	24¼ 25¼
50	Pearson and Knowles, B,	50 0	29 31
20	Pelsall Coal and Iron [L]	20 0	11½ 12½
5	Rhymney Iron Co. [L]	5 0	1¼ 1¾
10	Sandwell Park Colliery Co. [L]	10 0	
100	Shotts Iron Co. [L]	100 0	27½ 30
25	Sheepbridge Iron and Coal [L]	20 0	8 8½
50	Silkstone & Dodw. Cl. & Iron [L]	45 0	
50	Somorrostro Iron Co. [L]	50 0	
100	Staveley Iron and Coal Co. [L]	60 0	61 62
100	Ditto ditto B	10 0	10 10½
5	Teesside Iron & Engine Works	5 0	½ ¾
50	Tredegar Iron and Coal, A [L]	30 0	20 20½
25	Ditto ditto B	25 0	17½ 18
10	Vancouver Coal [L]	8 0	5½ 6
25	W. Cumberland Iron & Steel [L]	20 0	4⅞ 5⅛

BANKS.

Issue.	Shares.	Company	Pd.	Clos. pr.
100000	10	Agra [L]	all	9½ 10½
80000	20	Anglo-Egyptian Banking [L]	all	16½ 17½
30000	40	Bank of Australasia	all	88 90
12500	20	Bank of British Columbia	all	23 24
120600	50	Bank of British North America	all	64 66
10000	25	Bank of Egypt	all	27 28
50000	20	Bank of New South Wales	all	66 68
100000	10	Bank of New Zealand	all	28½ 29½
25000	25	Bank of South Australia	all	
120000	50	Bank of Victoria	25	36 38
40000	20	Chartrd. of Ind., Aust., & China	all	23 24
30000	25	Ch. Merc. of Ind., Lond., China	all	17½ 18½
20000	100	Colonial	30	63 66
60000	20	English Bk. of Rio de Janeiro [L]	10	13½ 14
60000	25	London and River Plate [L]	10	13½ 14½
60000	7	London and San Francisco [L]	all	5½ 6
150000	20	London Chartered of Australia	all	20 21
100000	10	National Bank of N. Zealand [L]	3½	3½ 4
60000	25	Oriental Bank Corporation	all	7½ 8½
12500	10	Queensland National [L]	8	12¼ 12½
40000	100	Stndrd. of South Africa [L]	25	41 43
20000	15	Union of Australia	all	73 75

GAS COMPANIES.

Issue.	Shares.	Company	Pd.	Clos. pr.
5000	20	Bahia [L]	all	22½ 23½
510000	5	Bombay [L]	all	6 6½
10000	5	Ditto, New [L]	4	4½ 5
29700	Stk	Brentford Consolidated	100	190 195
14000	20	British	all	39 41
50000	Stk	Commercial Consolidated	100	240 250
20000	20	Continental Union [L] Orig.	all	33½ 34½
20000	20	Do. do. New, 1869, 1872	14	22½ 23½
10000	20	Do. do. 7 per ct. Preference	all	28 29
23406	10	European [L]	all	19 20
94850	Stk	Gaslight and Coke, A, Ord.	100	201 205
284200	Stk	Do. 4 per cent. Deb. Stock	100	105 107
5000	10	Hong Kong and China	all	17 18
2800000	Stk	Imperial Continental	100	192 195
12000	5	Malta & Mediterranean [L]	all	2½ 3
100000		Metrop. of Melbourne 6 p.c. Deb.		
25000	20	Monte Video [L]	all	16½ 17½
10000	5	Ottoman [L]	all	4 4½
30000	5	Oriental [L]	all	7½ 8
27500	20	Rio de Janeiro [L]	all	26 27
500000	Stk	South Metropolitan, A	100	255 260
50000	Stk	Ditto, ditto. B	100	213 218

TRAMWAYS.

Issue.	Shares.	Company	Pd.	Clos. pr.
40000	5	Anglo-Argentine [L]	all	6⅛ 6⅝
10000	10	Barcelona [L]	all	9 10
7140	10	Belfast Street Tramways	all	8¾ 9¼
3050	10	Birkenhead, Ordinary	all	1½ 2½
3000	10	Ditto, 6 per cent. Preference	all	6½ 7½
9290	10	Bristol [L]	10	6 [illegible]
25000	10	Bordeaux Tram & Omnibus [L].	all	8¾ 9¼
25050	10	Calcutta [L]	all	9½ 10½
3200	10	Chester [L]	all	
24000	10	Dublin	all	7½ 8½
14690	10	Edinburgh Street Tramways	all	9½ 10½
35000	10	Glasgow Tramway & Omni. [L].	9	15 16
10000	10	Hughes Loco. and Tram. works.	all	
7500	10	Hull Street Tramways	all	8½ 9½
7500	10	Imperial [L]	all	1½ [illegible]
34000	10	Liverpool Unit. Tram & Om. [L]	all	9½ 10½
25000	10	London [L]	all	15½ 16
15000	10	London Street Tramways	all	17½ 18
60000	10	North Metropolitan	all	17½ 18½
8000	10	Nottingham and District [L]	all	8 9
15947	10	Provincial [L]	all	8 9
6000	10	Sheffield	all	4½ 5
5000	10	Southampton	all	5½ 6
6000	10	Sunderland [L]	all	5 6
10000	10	Swansea [L]	all	
12000	10	Tramways of France [L]	all	4½ 5
16500	10	Tramways of Germany [L]	all	11½ 12½
20000	5	Tramways and Gen. Works [L].	all	1½ 2
40000	5	Tramways Union [L]	all	3½ 4
25000	10	Vale of Clyde	6	
7200	10	Wolverhampton [L]	all	3½ 4

TELEGRAPH COMPANIES.

Shares.	Company	Pd.	Clos. pr.
Stk.	Anglo-American	100 0	36 37
10	Brazilian Submarine	10 0	10 10½
10	Cuba	10 0	9¾ 10¼
10	Direct Spanish	9 0	4 4½
20	Direct United States Cable	20 0	10 10½
10	Eastern	10 0	10⅞ 11⅛
10	East. Exten. Austr. and China	10 0	11¼ 11¾
10	German Union	10 0	9¾ 10¼
10	Great Northern of Copenhagen	10 0	13½ 13⅞
25	Indo-European	25 0	30½ 31½
10	London Platino Brazilian	10 0	3¼ 3¾

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